May-June 1998

PROGRAM MANAGER

"MIDS Will be the Link-16 Terminal of Choice for all Potential Customers."

"Build it and They Will Come"

Navy Capt. Dave Fitch
MIDS Program Manager

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Cover: Navy Capt. David Fitch, Program Manager, Multifunctional Information Distribution System (MIDS).
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Gansler, International Partners Accept Initial Delivery of MIDS-LVT at Pentagon Ceremony

MIDS IPO, Led by Navy Capt. Dave Fitch, Completes Four-Year Effort to Deliver Nation's Most Advanced C^3I System

COLLIE J. JOHNSON

"[MIDS] is an example of a program team accepting and managing risk. We accepted the challenge of changing the terminal architecture, using industrial parts, and accelerating the schedule for delivery of EMD terminals. We weren't 'shot at the break of dawn' when we missed our goal of 12 months' acceleration; instead, we were recognized and rewarded for the acceleration we did achieve, as well as the other things we accomplished. I think this is a positive message for DoD program managers."

—Navy Capt. Dave Fitch
MIDS Program Manager

NAVY CAPT. DAVE FITCH, MIDS PROGRAM MANAGER, IS CONGRATULATED BY UNDER SECRETARY OF DEFENSE (ACQUISITION AND TECHNOLOGY), DR. JACQUES S. GANSLER AT A PENTAGON CEREMONY ON MARCH 11. THE CEREMONY MARKED INITIAL DELIVERY OF THE MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM LOW VOLUME TERMINAL (MIDS-LVT) TO MIDS CUSTOMERS.

Noel Longuemare called it a "tall order." Tony Valletta said it was "a standards setter on how electronics should be designed and how international programs should be done." Paul Kaminski described it as "one of the most important and significant international cooperative programs in our lifetime." And according to Jacques Gansler, it becomes "the first successful major cooperative development in the military electronics field."

These current and former senior acquisition executives were all commenting on DoD's largest international cooperative development effort — an extraordinarily successful program called MIDS — Multifunctional Information Distribution System.

MIDS, a command, control, communications and intelligence (C^3I) program, is the next generation of Link-16 terminals and the DoD's first successful international cooperative development of a major electronics system. A tactical, secure, jam-resistant voice and data communications system, MIDS is fully interoperable with the earlier Link-16 system, the Joint Tactical Information Distribution System (JTIDS).

Showcased as a true acquisition success story, the program has gone through tremendous changes in scope, and technical and programmatic requirements, while simultaneously accelerating program milestones.

As an outstanding example of Acquisition Reform at its best, the MIDS program

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F/A-18

DoD Photos unless otherwise noted

According to MIDS Program Manager, Navy Capt. Dave Fitch, in the future every EF2000 or Rafaele that our allies bring to a coalition effort will be fully interoperable with U.S. Forces; and every EF2000 or Rafaele will be one fewer F/A-18, F-15, F-22, or Joint Strike Fighter needed to be provided by the United States.

Rafaele

team identified and implemented the widest possible array of Acquisition Reform initiatives in spite of the inherent difficulties in managing an international program. R. Noel Longuemare, former Principal Deputy Under Secretary of Defense (Acquisition & Technology) clearly understood those difficulties when he remarked, "You have made believers out of many, many skeptics."

Awarded the David Packard Award for Acquisition Excellence in March 1997, the MIDS program team also garnered

The Multifunctional Information Distribution System Low Volume Terminal (MIDS-LVT). A tactical, secure, jam-resistant voice and data communications system, the MIDS-LVT is fully interoperable with the earlier Link-16 system, JTIDS.

a Department of Defense Value Engineering Award in May 1997.

F-15 Eagle

Photo courtesy The Boeing Company

In the Beginning

How do you merge representatives from five nations, composed of officers and civilians from those five nations, eventually representing 15 military Services, a U.S. prime contractor, and an international industrial team consisting of six companies into a coherent, cohesive, cooperative international program team?

That was the formidable challenge facing Navy Capt. Dave Fitch and his senior leadership team back in September 1993 when he was first named MIDS Program Manager.

EF2000

First conceptualized and supported by Nunn-Warner cooperative funding during the late 1980s, DoD viewed MIDS as an opportunity to enhance interoperability and the coalition warfare capability of the United States and its closest allies, and to strengthen transatlantic political and industrial ties. Toward that end, an

industrial team representing eight nations was assembled between 1987 and 1989 that explored the technical implementation and concepts.

Subsequently, between 1990 and 1993, before DoD established a separate International Program Office (IPO) for the MIDS international engineering, manufacturing, and development phase, the nations separately funded risk-reduction activities of their industries toward the design that had been conceptualized in the project definition phase.

Among the nations, the desire to participate in the MIDS Program was always there. However, each nation had its own special definition of best value, and each had to consider the cost they would bear.

JOHN DESALME, FORMER PROGRAM EXECUTIVE OFFICER, SPACE, COMMUNICATIONS AND SENSORS (PEO-SCS) DISCUSSES THE MIDS PROGRAM WITH ACTING ASSISTANT SECRETARY OF DEFENSE (C^3I), ANTHONY "TONY" VALLETTA. DESALME WAS THE PEO-SCS, AND CHAIR OF THE INTERNATIONAL STEERING COMMITTEE UNTIL AUGUST 1997.

Good Help Means Everything

In taking on the tremendous challenge of managing the MIDS IPO, Fitch did not have to go it alone. He is also supported by a strong international leadership team: a Deputy Program Manager from France; a Senior Technical Officer from the United States; and Division Chiefs from Italy, Germany, and Spain who manage MIDS Engineering and Manufacturing Development (EMD), including the day-to-day technical, program control, and customer liaison functions.

An outstanding team of European and U.S. personnel from the five participating nations — France, Germany, Italy, Spain, and the United States — make up the MIDS International Program Office (IPO). Collectively, their significant technical, acquisition, business, and operational military experience represents the finest professional expertise of 15 separate military Services of the five MIDS nations.

Oversight

An international agreement among the five participating nations calls for an International Steering Committee for program oversight. Currently, Bill Eaton, the Program Executive Officer, Space, Communications and Sensors (PEO-SCS) is the U.S. member of the Steering Committee and also serves as Chair.[1] Fitch, as program manager, reports to the Steering Committee. Also by international agreement, Eaton is responsible for all host nation responsibilities, including oversight and management of program contracts.

Because MIDS is a major ACAT ID U.S. acquisition program, Fitch also reports to the Under Secretary of Defense (Acquisition and Technology) through the PEO-SCS, and the Assistant Secretary of the Navy (Research, Development, and Acquisition). U.S. joint acquisition

MIDS Program — From Inception to Delivery

Date	Key Event
September 1993	Establishment of the MIDS Program Office.
December 1993	Milestone II DAB.
February 1994	Supplement 2 to International Agreement signed.
March 1994	EMD contract awarded to MIDSCO, Inc.
June 1994	Restructuring of EMD Program approved.
August 1994	Major contract modification to implement open systems architecture, commercial/industrial parts, IPTs, and other Acquisition Reform initiatives.
August 1995	Major contract modification for first variant of MIDS terminal, tailored to requirements of U.S. Army.
September 1996	Competitive contract awarded to U.S. Joint Venture with European industry partners for another MIDS variant with reduced functionality for U.S. Air Force F-15s.
August – October 1997	OTAs awarded to four U.S. and European teams to prepare for competitive MIDS production.
September 1997	MIDS IPO relocated to San Diego, Calif.
February 1998	First EMD terminal delivered on Feb. 4, 1998.
March 1998	MIDS variant flew in an F-15 avionics suite aboard a C-130, March 4, 1998.
March 1998	MIDS Rollout Ceremony, Pentagon, March 11, 1998.

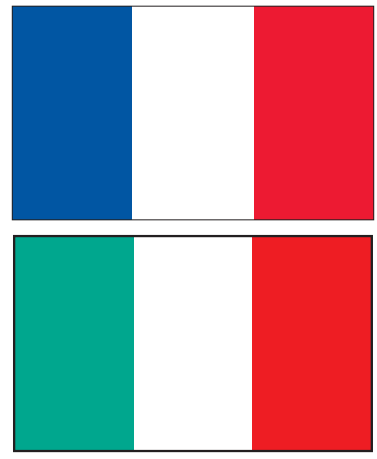
management is accomplished by U.S. Army, U.S. Navy, U.S. Air Force, and Joint Chiefs of Staff participation in a tri-Service Program Executive Council, now chaired by PEO-SCS.

Fitch and the IPO enjoy strong support from the Space and Naval Warfare Systems team, comprised of the PEO-SCS and the Space and Naval Warfare Systems Command (SPAWAR). Support spans the areas of contracting, accounting, logistics, financial management, security, legal, and public affairs. The Defense Contract Management Command (DCMC) also provides technical and management support, along with MITRE Corporation, Draper Laboratory, and various government engineering, logistics, and test centers. Together, the IPO, government and contractor support organizations, and the MIDS industry partners, comprise the MIDS Program team.

Organized into functional and multidisciplinary Integrated Product Teams (IPT), the IPTs are responsible for the technical, cost, and schedule performance of their respective areas of responsibility, using earned value management principles. Further, a government and industry systems team functions to integrate and coordinate the efforts of the IPTs.

Importance of International Cooperation

On Dec. 10, 1993, the MIDS program went to the Defense Acquisition Board (DAB) for Milestone II approval. The Acquisition Decision Memorandum (ADM) of Dec. 17, signed by R. Noel Longuemare, [former] Principal Deputy Under Secretary of Defense (Acquisition and Technology), directed "Go forward; execute the international agreement; award the contract that has been negotiated; concurrently study the technology and the architecture being used for the terminal to identify ways to improve technology insertion, to reduce cost and reduce schedule of the program; and utilize an international process action team."[2] By separate letters, the national armament directors of the four European MIDS nations were asked to support the proposed effort.



"France, Italy, Germany, Spain, and the United States are using joint programs such as the MIDS to build a transatlantic partnership based on common security interests and joint military requirements."

—Dr. Jacques S. Gansler USD(A&T)

The MIDS program team began work shortly before Christmas 1993, pulling together the structure and plan for the international process action team, involving both government and industry. The objective was to fundamentally rethink the entire program. Specifically, the team looked at the technology and architecture that had been planned previously, with the aim of implementing change, where necessary, to facilitate technology insertion throughout the life cycle, and reduce cost and schedule.

The International Steering Committee commenced meeting in early 1994 with the dual focus of initiating EMD and restructuring the program. Between January and March, 1994, the United States hosted a number of International Steering Committee meetings in Washington, D.C. Initially, the Steering Committee anticipated meeting, about twice a year for overall management of the program; in this case, for a time, they met to rethink and restructure the program, almost on an every-month or six-week basis.

In addition to designating host nation and contracting responsibilities, the international agreement defined five primary objectives of the MIDS Program:

- The MIDS program team was to design, develop, manufacture, and test a terminal that meets the technical requirements of Link-16 implementation and achieves interoperability with JTIDS.
- The MIDS terminal would be designed and manufactured to achieve the best price.
- The MIDS team would include technology transfer in their program strategy to ensure sharing of technology among the nations.
- The participating nations would perform work commensurate or roughly equivalent to their cost share.
- The nations would share what are termed common costs, in a ratio defined by the international agreement.

To achieve the objectives in a collaborative environment, the international agreement

called for cooperative leadership of the program. The cooperative leadership begins with the International Steering Committee, in which everyone has an equal vote and all decisions must be unanimous.

Also by international agreement, the United States provided about half of the manpower in the International Program Office during EMD. Typical European representation during the EMD phase of the program has been one team member from Spain; as high as six from France; as high as four from Italy; and as high as four from Germany.

Sharing was an important factor in the success of the program: sharing of leadership on the Steering Committee; sharing of leadership of program direction in the senior leadership ranks of the IPO; and on the industrial side, sharing of information and technology between all the nations so that every aspect of the program was truly collaborative.

JOINED BY ALLIED DEFENSE OFFICIALS FROM THE OTHER FOUR NATIONS INVOLVED IN THE DEVELOPMENT OF MIDS — FRANCE, GERMANY, ITALY, AND SPAIN — USD(A&T), DR. JACQUES S. GANSLER ACCEPTED INITIAL DELIVERY OF THE MIDS LOW VOLUME TERMINAL (MIDS-LVT) FROM JOHN SPUTZ, PRESIDENT, MIDSCO, INC., AT A PENTAGON CEREMONY ON MARCH 11. PICUTURED FROM LEFT: SPUTZ; BENOIT LAURENSOU, FRANCE; ANGEL JARA, SPAIN; MAJ. GEN. POMPONI, ITALY; GANSLER; WINFRIED WECKWERTH, GERMANY.

A Word About the Prime Contractor

Shortly after the Milestone II DAB in December 1993, the U.S. Navy, on behalf of France, Germany, Italy, Spain, and the United States awarded the contract for the engineering and manufacturing development of the MIDS-Low Volume Terminal (MIDS-LVT) to MIDSCO, Inc., a U.S.-chartered, international joint venture corporation located in Fairfield, N.J.

Incorporated back in late 1989, MIDSCO, as the prime contractor, has a multinational management and technical staff that includes professionals from its five member (shareholder) companies: ENOSA; GEC-Marconi Hazeltine; MIDSpA [formerly Italtel]; Siemens; and Thomson, CSF. John Sputz, as President, MIDSCO Inc., is on the MIDSCO Board of Directors, which is made up of a vice president from each of the five companies.

MIDSCO's No. 1 purpose was to design, manufacture, and prove a state-of-the-art command and control system — MIDS — that would be fully interoperable with the earlier Link-16 system, the JTIDS. MIDS, the next generation of Link-16 terminals, however, would also feature new Link-16 capabilities for multinational and multiplatform interoperability in support of coalition forces.

Warren Nadler, as the program manager and chief operating officer of MIDSCO, oversees day-to-day management of the program. In an arrangement similar to Fitch reporting to the International Steering Committee, Nadler reports to the MIDSCO Board of Directors for the execution of industry responsibilities and interests.

Each of the companies subcontracted to MIDSCO is represented on the Board of Directors and has a part of the work and responsibility for the program contract. Nadler, on the one hand, reports to the MIDSCO shareholders; on the other hand, he also ensures that the terms of formal subcontracts are being met. Fitch credits Nadler with exceptional effectiveness in managing a very complex and challenging development contract and industrial organization. Currently, the value of the contract is over $400 million.

Challenges... and There Were Many

Sometimes it's the seemingly little things that present the biggest challenges.

Vision. One of the earliest challenges for the MIDS program team and the International Steering Committee was developing a clear, unified vision of the program. The International Steering Committee achieved consensus on a unified vision during the period of the restructuring effort, and the vision has guided the program ever since: *"MIDS will be the Link-16 terminal of choice for all potential customers."*

Fitch, who often briefs MIDS at the Defense Systems Management College (DSMC), displays the MIDS vision and picture of the MIDS-LVT on a slide. Across the bottom of the slide is his personal insight, borrowed from the Kevin Costner film, *Field of Dreams*: "Build It and They Will Come."

Personnel Resources. At the start of MIDS development, Fitch managed the program with a team of U.S. and European professionals. The European nations hesitated to post the full complement of permanent personnel until the program actually started. Once that date

became known, the nations quickly assigned the remainder of the program office staff.

Throughout his entire five years as program manager, Fitch has adapted to and adjusted for a high turnover of both European and U.S. personnel as the result of military rotations and a relocation of the office from Washington, D.C., to San Diego, Calif., in 1997. Only one member of the original IPO remains, and many positions have been vacated and filled twice.

Industrial Structure. The international agreement calls for an industrial structure that benefits all the participating nations. According to the agreement, a sole-source contract would be awarded to MIDSCO. Significant work had been accomplished in advance of EMD by the Navy program office responsible for JTIDS integration into Navy platforms.

Led by Navy Capt. Dave Ahern and Dr. Ken McCloud, a comprehensive contract had been negotiated with MIDSCO. Also, industry had allocated the work consistent with the technical strengths of the subcontractors, and in proportion to the nations' cost shares. The challenge became the restructuring of the program, the terminal architecture, and the contract, including work share, to comply with the ADM guidance.

Unique Financial Management Processes. The MIDS program required establishing unique processes for financial management and even payment of program expenditures. To manage the process, Fitch has a financial management board, with senior national representatives from the IPO. Together the IPO, along with the staff of the Program Executive Office, and Space and Naval Warfare Systems Command (SPAWAR) accounting personnel, manage an international banking network.

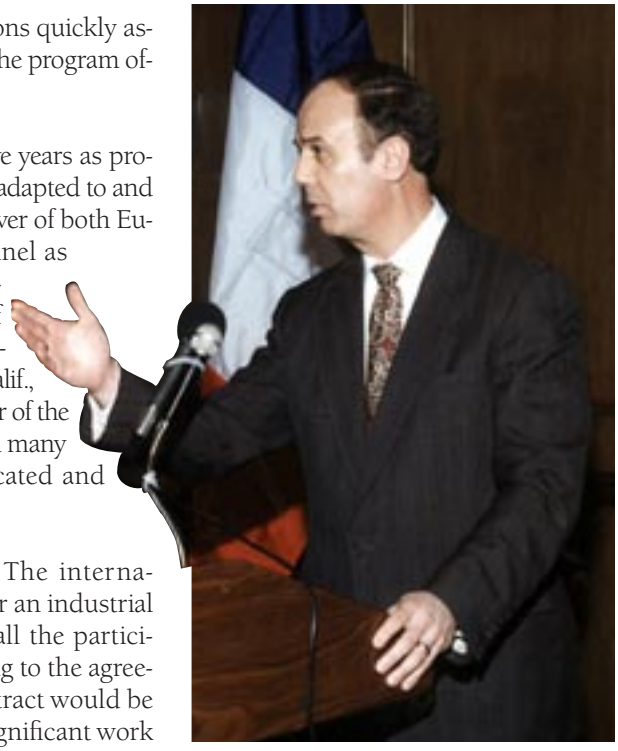
The banking network reports deposits made by the European nations and makes electronic transfers of funds, including all the appropriate levels of checks and balances to prevent fraud, waste, or abuse. In effect, the network allows member nations to deposit their national currencies in their own banks; thus, their currencies are not routinely exchanged and, in fact, do not go through exchanges except, as necessary, to pay program bills. France pays as much of her obligated share as possible in French francs; and Germany pays, to the maximum extent feasible, in Deutsche marks.

For the most part, the Financial Management Board targets payments to each country's currency. The U.S. Treasury pays all the U.S. bills for the program in dollars. Fitch says that program funding by the nations has been timely and consistent with the needs of the program and the international agreement.

International Working Groups. Because the MIDS program team developed MIDS as a product for multiple customers (now approaching 20), the IPO has used international working groups to resolve issues with the program's Interface Control Document, and more recently, they created an international test and interoperability working group. Currently, the primary aircraft customers for the MIDS-LVT are the Eurofighter, EF 2000; the F/A-18; the French Rafaele; and the F-16.[3] Also, a version of MIDS is now being procured for the F-15.

Acquisition Reform. At the beginning of the EMD program, DoD senior acquisition leaders challenged the MIDS program team to go out – concurrent with the execution of the program and an ongoing attempt by the team to accelerate initial program deliveries by up to a year – and completely revamp the terminal architecture to implement open standards and industrial parts; and to showcase other Acquisition Reform initiatives such as Cost As an Independent Variable, Integrated Product Teams, and the Single Process Initiative.

Fitch notes that the IPO has expanded the program's application of Acquisition Reform principles in every new program contract and activity. The most recent



ACTING ASSISTANT SECRETARY OF DEFENSE FOR COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE (C^3I), ANTHONY "TONY" VALLETTA. AS THE "OVERSIGHT GURU" FOR THE MIDS PROGRAM, VALLETTA SAID THAT FITCH AND THE MIDS PROGRAM TEAM DID WHAT WAS BELIEVED TO BE THE IMPOSSIBLE: TURNING A MAJOR PROGRAM AROUND OVERNIGHT — "ACTUALLY UPSIDE DOWN" — TO IMPLEMENT OPEN SYSTEMS ARCHITECTURE AND COMPREHENSIVE ACQUISITION REFORM.

"The United States and this Department consider the MIDS program to be not only a model for international cooperation, but ultimately a model for the future, for all programs that we do on an international basis."

—Anthony "Tony" Valletta Acting ASD(C^3I)

was competitive award of four Other Transaction Agreements (OTA) to facilitate transition from EMD into competitive production.

Keep International Agreement Intact. Throughout the numerous changes of scope and direction of the program, the program team kept the fabric of the international cooperative agreement in place. This was evident in European acceptance of a separate procurement (managed by the IPO) for the U.S. Air Force. As a result of this procurement, the IPO benefited from the infusion of five U.S. Air Force officers. The U.S. Army is also represented in the IPO.

THREE OF THE MANY KEY MANAGERS OF THE MIDS PROGRAM — NAVY CAPT. DAVE FITCH, MIDS PROGRAM MANAGER; USD(A&T), DR. JACQUES S. GANSLER; JOHN SPUTZ, PRESIDENT, MIDSCO, INC.

Innovative Logistics Support. As the program team went out and worked the Air Force procurement, they attempted to take another step down the road of Acquisition Reform. An example is the innovative logistics support requirements of the contract. The program team negotiated contractor logistics support provisions where the contractor will be paid for availability of the system on the F-15, not repairs to the terminal. As a result, the contractor is "incentivized" to achieve the highest possible availability, and to avoid the cost of repairing terminals.

Other Acquisition Reform initiatives demonstrated in the solicitation included a requirement for use of an open systems architecture, oral presentations, and an innovative approach to evaluate past performance that Fitch subsequently briefed to the head of the Office of Federal Procurement Policy (OFPP).

Decision Making Authority. Another challenge confronting the IPO leadership team at the start of EMD was the issue of authority to make decisions. Fitch wanted to push the authority to the lowest possible level, commensurate with effective program control and management. Guidelines were agreed upon and incorporated into a program management plan that was approved by the International Steering Committee.

"It's a challenge to manage with just the right mix of cooperation and authority. There's a team commitment to maintain a professional and to some degree, a personal rapport, among all the members."

—Navy Capt. Dave Fitch
MIDS Program Manager

"It's a challenge," says Fitch, "to manage with just the right mix of cooperation and authority. There's a team commitment to maintain a professional and to some degree, a personal rapport, among all the members."

Lessons Learned? Of Course!

Although Fitch is admittedly hesitant to give advice to other program managers, based on hindsight he does point out several principles of effective leadership and management that have been critical in MIDS.

Congruence of Objectives. When the MIDS program team first got together at EMD with the International Steering Committee for the first time at the International Program Office, a wide diversity of objectives and interests surfaced. Everybody was not aligned, going in the same direction on the same day. How could they? They all came with national interests, different backgrounds, and experiences. Setting aside their differences, the program team worked together cooperatively, and ultimately defined common goals and objectives, which were then reflected in the Steering Committee vision.

A congruence of, and commitment to, common objectives has facilitated free and open discussion of specific national concerns on a day-to-day basis.

Data-Driven Decisions. In a program where a diversity of interests and objectives exists, it's very important that decisions be data driven and as timely as possible. What that really means, says Fitch, is that you need to have a management objective to know the actual cost, schedule, and technical status of the program at any time.

Without a realistic understanding of the cost, schedule, and technical aspects of the program, fused together in one "big picture," it's difficult to make data-driven decisions (or at least to make *good* data-driven decisions). And when you make decisions that are based upon data, the opportunity for misinterpretation or questioning of motives is reduced.

Trust and Confidence. In an international program, Fitch believes that you cannot underestimate the importance of

trust and confidence in every aspect of the program. He refers to a survey conducted by DSMC's Advanced International Management Workshop Course Director, Richard Kwatnoski. Targeted at U.S. program managers and other acquisition workforce personnel involved in international programs as well as personnel offshore, one question on the survey asked respondents to name the most important attributes of a successful international cooperative program. *Every* non-U.S. respondent listed trust as one of the top three attributes. Conversely, trust did not even appear as an issue in *any* of the U.S. responses.

Fitch believes the strong support of senior DoD leadership has been key to building European confidence that the United States is committed to cooperative development and production of MIDS. The United States has maintained its commitment to international cooperative development, and it has transitioned MIDS into a joint U.S. program.

Exceptional Team Support. "The MIDS team," said Fitch, "has benefited from absolutely superb support from the Office of the Secretary of Defense (OSD) and Navy leadership. There has been an unwavering commitment to support and meet all challenges of the program.

"We also had exceptional support from DCMC; DSMC; SPAWAR; the Navy International Program Office; the National Security Agency; the Navy's Best Manufacturing Practices team; Navy, Army, and Air Force program offices and field and test activities; and in industry, MITRE and Draper."

Relationship With Contractor. The issue of maintaining government responsibility, but not having an adversarial relationship with the contractor is also important. The contractor has to meet the objectives of the contract and be held to the terms obligated in the contract. On the other hand, there needs to be an effort on the part of the government to work with the contractor and implement the requirements in a manner that has the potential to minimize the cost.

JOHN SPUTZ, PRESIDENT, MIDSCO, INC. IN SPITE OF THE MANY NAYSAYERS AND SKEPTICS WHO SAID MIDS COULD NEVER BE DONE AS AN INTERNATIONAL PROGRAM, SPUTZ SAID THAT RESTRUCTURING THE PROGRAM AS A DOMESTIC VERSUS INTERNATIONAL PROGRAM WAS NEVER AN OPTION.

Delivery Day

Joined by allied defense officials from the other four nations involved in the development of MIDS, Under Secretary of Defense for Acquisition and Technology, Dr. Jacques S. Gansler accepted initial delivery of the MIDS Low Volume Terminal (MIDS-LVT) from John Sputz, President, MIDSCO, Inc., at a Pentagon ceremony on March 11, 1998.

Also attending the ceremony were members of the MIDS program team; allied defense and industry officials; representatives from the allied Ministries of Defense; representatives of the Joint Staff; the Deputy Under Secretary of Defense (International and Commercial Programs); Service, Agency, and major command senior acquisition leaders; and members of the MIDS International Steering Committee (who changed the site of their weekly meeting from Madrid, Spain, to Washington, D.C., expressly to attend the ceremony).

A Word From the C^{3}I

Welcoming those attending, Anthony "Tony" Valletta, the Pentagon's Acting Assistant Secretary of Defense for C^{3}I, spoke of the significance of the MIDS rollout to the United States and its allies. As the "oversight guru" for the MIDS Program, he talked about the many nights and weekends spent with Capt. Fitch and the team doing what was believed to be the impossible: turning a major program around overnight —"actually upside down" — to implement open systems architecture and comprehensive Acquisition Reform.

Valletta's remarks referred to the major restructuring of the program at the start of EMD — concurrent with program start-up and EMD contract award. Originally, the program team was going to deliver the first flyable terminals approximately 50 months after contract award. When DoD asked the team to project the shortest time that they believed the program could be done, there was a lot of negotiation on both sides. There was political pressure and several other factors that played in the equation. Eventually, the two sides compromised on a goal of 38 months.

At the same time the program team was executing the contract, they were told to go in and completely lay out a new, open systems architecture. The team's first estimate for laying in the new architecture was around six months. It eventually took them 12 months to identify all the details and completely implement an open systems architecture where none had previously existed.

Instead of being able to "take off" at EMD with the design for which they had already awarded the contract, the program team regrouped and spent a large portion of their efforts over the next 12 months identifying how they were going to change the original design.

Despite the extended period for detailed engineering of the new architecture, and significant changes to program scope (Army and Air Force versions of MIDS added), the program still achieved a

delivery that was six months ahead of the schedule prepared for the Milestone II DAB.

Said Fitch, "[MIDS] is an example of a program team accepting and managing risk. We accepted the challenge of changing the terminal architecture, using industrial parts, and accelerating the schedule for delivery of EMD terminals. We weren't 'shot at the break of dawn' when we missed our goal of 12 months' acceleration; instead, we were recognized and rewarded for the acceleration we did achieve, as well as the other things we accomplished. I think this is a positive message for DoD program managers."

U.S. Navy Multifunctional Information Distribution System (MIDS) International Program Office (Communications-Computer Systems Integrated Product Team). The team was awarded the David Packard Excellence in Acquisition Award at a Pentagon ceremony on March 17, 1997.

Speaking to the MIDS international partners and representatives from their Ministries of Defense, Valletta congratulated them and said that "The United States and this Department consider the MIDS program to be not only a model for international cooperation, but ultimately a model for the future, for all programs that we do on an international basis. My success, your success, the Department's success, your nation's success, and the five industries of our nations have made this happen."

Reading aloud two letters — one from Dr. Paul Kaminski, former Under Secretary of Defense (Acquisition and Technology) and the other from R. Noel Longuemare, Kaminski's Principal Deputy — Valletta stated that although they couldn't be at the ceremony due to prior commitments, "These two individuals helped us get to where we are today."

A Word From the Prime Contractor

After thanking those in attendance and DoD and Navy leadership for their support, the Navy PEO, Bill Eaton introduced John Sputz, the President of MIDSCO and MIDS prime contractor.

Sputz emphasized that MIDS was an accomplishment on the part of many, many people, who overcame many hurdles, including the naysayers, who said the United States should do the program themselves, transfer it overseas and in the process, make some money. Many were against international co-development of MIDS and believed the United States should take the easy road and do the program themselves because of the scope and management complexity of international programs. How-ever, the program team kept a co-development going, according to Sputz; restructuring the program as a domestic versus international program was *never* an option for a very important reason.

"Go forward; execute the international agreement; award the contract that has been negotiated; concurrently study the technology and the architecture being used for the terminal to identify ways to improve technology insertion, to reduce cost and reduce schedule of the program; and utilize an international process action team."

—R. Noel Longuemare
Former Principal Deputy, USD(A&T)

International development of MIDS greatly expanded the implementation of Link-16 in our allies' forces. In essence, MIDS is a "force multiplier." Because maintaining the peace in the 21st century will most likely be done with coalition forces, a common control and communications system like Link-16 and MIDS will allow the highest level of integration and communication among coalition forces. The language that will integrate sensor information, the status of forces, and commands for engagement of forces, irrespective of nationality, will be Link-16 digital information piped into everything from cockpits to command centers.

Providing the attendees an update on when and how MIDS will be produced in the future, Sputz stated that in the current development phase, the participant countries have funded 108 EMD terminals and associated support equipment. MIDS customers include the European EF 2000, the French Rafaele, and the U.S. F/A-18, F-16, and F-15. International production, said Sputz, is expected to exceed 5,000 terminals. Earlier program deliveries included 11 MIDS simulators that are being used to integrate the capability into an array of combat systems.

Sputz said that the first two terminals, delivered in February — one in the United States and the other in Europe — were already operating in integration facilities. Said Sputz, "Delivering both here and across the pond concurrently is a big, big step."

He praised the farsighted and bold move by the MIDS program team and its oversight organizations to redirect the MIDS Program into an open systems architecture. "To show you the success of that bold move, last week we flew a MIDS Fighter Data Link, which is a derivative of the MIDS terminal. This could only have been accomplished with an open architecture box such as we now have; we pulled some cards out, put some other cards in, made it interoperable for an F-15, and flew it almost concurrently with the deliveries of the MIDS [EMD] terminals."

Sputz spoke of one of his first conversations with Dr. Gansler, shortly after his appointment as Under Secretary of Defense (Acquisition and Technology) in December 1997. They were discussing the MIDS Program and some of the co-development aspects, such as crypto or COMSEC, when Gansler surprised him with a question: "Why were you successful? Why is this program so much more successful than some of the other programs where we [DoD] attempted to do the same thing?"

Sputz answered him by repeating a word used by Paul Kaminski: *persistence*. "I think the differentiator is persistence. We just simply did not give up...persistence on the part of the DoD folks, the Steering Committee folks, the PEO, certainly the IPO, the leadership in the IPO, MIDSCO, and its five contractors. No one said, 'Hey, it's too hard to do and we're not going to do it.' We just simply didn't give up. Yes, persistence, dedication, I think made the difference."

A Collective Acceptance

Under Secretary of Defense (Acquisition and Technology), Dr. Jacques S. Gansler called for representatives of the participant nations — "our partners" — to join him at the podium in accepting the MIDS-LVT from John Sputz, President of MIDSCO. (Gansler noted that he and Sputz had worked together 35 years ago in New Jersey.)

BILL EATON, THE PROGRAM EXECUTIVE OFFICER, SPACE COMMUNICATIONS AND SENSORS (PEO-SCS) IS THE U.S. MEMBER OF THE INTERNATIONAL STEERING COMMITTEE AND ALSO SERVES AS CHAIR. BY INTERNATIONAL AGREEMENT, EATON IS RESPONSIBLE FOR ALL HOST NATION RESPONSIBILITIES, INCLUDING OVERSIGHT AND MANAGEMENT OF PROGRAM CONTRACTS.

Gansler spoke of the many new threats faced by the United States and its allies in the 21st century and the importance of MIDS in countering those threats. "France, Italy, Germany, Spain, and the United States are using joint programs such as the MIDS to build a transatlantic partnership based on common security interests and joint military requirements.

"MIDS is the first successful major cooperative development in the military electronics field, the first of what I hope will be many, many more.

"MIDS fits the requirements for interoperable communications, IFF, and air defense equipment. Actually, this is the third generation Link-16 terminal to be fielded with our allies. And it's compatible with and interoperable with all of the previously fielded Link-16 terminals.

"The MIDS Program, which is part of our broad effort to share technology and intelligence, can help our joint partnership to shape the European defense electronics base, so that it can remain an equal partner in the transatlantic cooperative environment...That's why I personally think today's ceremony is so important."

A Word From the Program Manager

Navy Capt. Dave Fitch, referring to the MIDS Program team as a government-industry team that transcends the Program Office, thanked everyone participating in or associated with the MIDS Program for their very strong support, including the Defense Contract Management Command, the surveillance and the engineering technical staffs of five nations, and the leadership of the five participant nations.

He believes the success of the MIDS Program team is attributable to the sharing of common objectives and a very high level of communication and cooperation. The challenge of executing a major acquisition program involving an international, transatlantic development and manufacturing facility has been overcome with strong leadership in each participant nation's Ministry of Defense, the Department of Defense, the companies that comprise the MIDS industry team, and the commitment of every member of the MIDS Program team.

In closing the presentation ceremony, Fitch thanked all the attendees for "your most valuable resource — your time — to come out and recognize the accomplishment of this team." He went on to say that "Any recognition given the MIDS program team is based on the accomplishments of the team and *no one individual*."

Said Fitch, "We realize that this is the first step of many...and it's our commitment to you to continue to make the

program successful, transition from engineering, manufacturing, and development into cooperative production, and ultimately set the way in standards."

Editor's Note: Fitch is a graduate of PMC 92-2, DSMC. He was certified as a Project Management Professional in 1993 by the Project Management Institute, and is DAWIA-certified in Program Management at Level III. He is a frequent lecturer and speaker at DSMC. After nearly five years as MIDS PM, he will turn over the helm of the program on May 28, and retire later this summer.

ENDNOTES

1. John DeSalme was the first U.S. member of the MIDS International Steering Committee. To date, the U.S. member has been elected by the members of the Steering Committee as Chair.
2. In 1993, before the advent and institutionalization of Acquisition Reform initiatives, there were no Integrated Product Teams (IPT) — only Process Action Teams (PAT).
3. The French Rafaele is an aircraft used by the French Air Force, Navy, and Marine Corps.

FROM ACROSS THE MILES — KAMINSKI, LONGUEMARE "WEIGH IN"

Former Under Secretary of Defense (Acquisition and Technology), Dr. Paul Kaminski to the MIDS International Program Office:

Please accept my congratulations and thanks at this ceremony to commemorate the first terminal delivery of the Multifunctional Information Distribution System. I'm very sorry I cannot be with you today, but a longstanding commitment places me on the other coast. I am with you in spirit, and I commend you for your outstanding work. It was my great honor and pleasure to have served with you. You are delivering on your commitment and leading the way for what I predict will be one of the most important and significant international cooperative programs in our lifetime. But keep on pushing, leading the way, because we won't get there without your continued dedication and persistence.

"Bravo Zulu"

Paul Kaminski

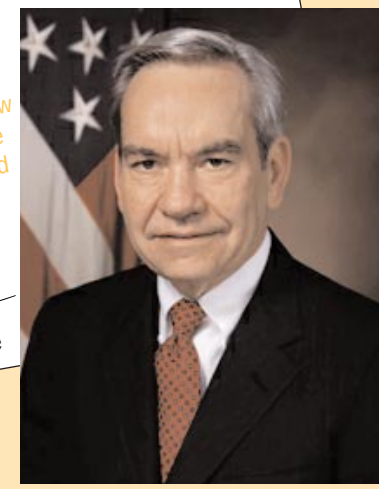
Former Principal Deputy Under Secretary of Defense (Acquisition and Technology), R. Noel Longuemare to the MIDS International Program Office:

To the MIDS team — congratulations on today's rollout. You have made believers out of many, many skeptics. I'm just sorry I cannot be with you today. I well remember the MIDS DAB — that's the Defense Acquisition Board — back in December of 1994, or thereabout. It was the first one that I chaired. At that meeting we set a goal for you to come back in six months with a new design that cut the cost in half, introduced new technology and packaging concepts, and incorporated a modular add-or-subtract-feature capability. Most importantly, this was to be done in cooperation with our international partners. This was a tall order, especially in so short a time.

Well, you have more than done this. You have come up with an open systems MIDS design and a program structure that, in many ways, is a standards setter on how electronics should be designed and how international programs should be done. Today's rollout is proof of your success and great effort. Please accept my congratulations for a job well done. It has been a real privilege for me to work with you, and I wish you continuing success as you push MIDS to reach its full potential in the future.

Sincerely,

Noel Longuemare



AIR FORCE NEWS SERVICE

Agile Logistics: Where We've Been, Where We're Going

LT. GEN. WILLIAM P. HALLIN, U.S. AIR FORCE
DEPUTY CHIEF OF STAFF FOR
INSTALLATIONS AND LOGISTICS

WASHINGTON (AFNS) – Agile logistics has evolved for many years, under many names, but always focused on increasing combat support. Lean logistics was what we called our first attempts to improve our logistics process. Now we use the phrase "agile logistics" because it better reflects how we've improved our logistics operations.

We are restructuring the worldwide logistics system to equip operational commanders and their combat forces with increased deployment speed, range, and maneuverability. To understand where we're going with logistics support, it's important to know where we've been.

Money and manpower that countered decades of Cold War threats resulted in a "resource rich" approach to logistics support. Whatever the Air Force needed, within reason, was budgeted for and procured. When the Air Force needed B-29 Superfortress bombers, more than 3,000 were procured and delivered. Airfields and warehouses were well stocked with airplanes, parts, and support equipment. Airplane parts were pre-positioned at bases around the world for quick and massive response.

When the Berlin Wall came down, support for resource-rich logistics also ended. Large inventories of pre-positioned aircraft parts, support equipment — even airplanes — were deemed superfluous. The Air Force, and all of the Department of Defense, were seen as having too many weapons, support equipment, manpower, and spare parts. Money and manpower were taken away from the Services, and they were told to reduce spare inventories.

This was when, with the added influences of Desert Storm and Desert Shield, we seriously assessed our logistics methods and decided we needed to change our way of doing business.

First we looked at reducing inventory. The Air Force projected savings, both in inventory levels and manpower, by changing the maintenance on select items. Three-level maintenance — depot, intermediate, and field level — gave way to two-level maintenance, dropping intermediate level. This became the first step in lean logistics.

Meanwhile, the nature of our wartime threat had dramatically changed. Instead of worrying about fighting a long protracted war, we faced the possibility of having to support multiple small engagements. With fewer overseas bases, it became more difficult to pre-position assets at forward bases. Therefore, we needed the ability to "reach back" for critical supplies and have them delivered on a time-definite schedule.

To balance readiness and modernization in an era of declining budgets, the Air Force needed to find a way of making what few spare parts we had stretch as far as possible. We looked at our logistics processes and discovered there were many opportunities for significant contributions to this goal.

For instance, in fiscal year 1994 it took 31 days to return a reparable asset back to the depot for repair and ship a replacement asset back to the base. Using lessons from Desert Shield and Desert Storm, we set a [fiscal year 1997] goal of 22 days for the complete cycle. Our logisticians did their jobs so well they actually bettered that goal.

To improve the decision process on which items needed repair, a new repair planning system was developed. This system was named the Execution and Prioritization of Repair Support System, or EXPRESS. Now we can forecast demands without waiting for backorders to build. Depots can better project repairs and make better use of tight dollars.

Next on our list was reduction in depot repair time, which four years ago took an average of 31 days. Our answer was the Depot Repair Enhancement Program, or DREP, which has since reduced the repair pipeline time for avionics assets by 78 percent.

The Air Force logistics system is large and complex, but agile logistics has already shown us how we can improve support to our warfighters. This is the first step in a new era in Air Force logistics. If you have any questions, visit our agile logistics home page at **http://www.hq.af.mil/AFLG/LGM/leanlog.shtml**.

Editor's Note: This information, published by the Air Force News Service, is in the public domain and may be viewed at **http://www.af.mil/news** on the Internet.

Released: April 28, 1998

M&S Means Modeling and Simulation — *Not* Methods for Simulation

Optimization Model — Complement, Alternative, and Synergistic Partner to Simulation

LT. COL. STEVE BAKER, U.S. AIR FORCE
CAPT. MARK GRABAU, U.S. AIR FORCE

A recent issue of *Program Manager* devoted to Modeling and Simulation (M&S) presented a wide range of applications that highlighted the usefulness and ubiquity of these computer-based techniques.[1] From the articles, clearly the Department of Defense (DoD) is a leader within the realm of M&S.

The 1990s have brought with them a great appreciation for the value and cost effectiveness of modeling in acquisition, training, and analysis. Unfortunately, many people within DoD equate modeling *with* simulation, ignoring the full potential of the other capabilities. By contrast, the private sector is well aware of, and fully exploits a full range of modeling techniques.

In this article, we emphasize that simulation is only one technique within the set of available modeling tools. Furthermore, other model forms, notably optimization, should often be used as a complement, alternative, and synergistic partner to analytical simulation.

Why *Does* DoD Emphasize Simulation Over Other Models?

Perhaps the simplest explanation as to why the DoD places so much emphasis on simulation models is because they are easy to understand, and have a long history of successful use by warfighters. Simulations allow the analyst to abstract reality in a logical, time-progressing manner. Indeed, the level of intuitive understanding facilitated by simulation allows any amount of human participation – from a pure training application where humans "run the show," all the way to a pure analytical application where the soldier's role embodies only one of many mathematical interactions.

Human participation gives simulations the advantage of familiarity over other modeling techniques, since most commanders have been exposed to the use of simulators as training devices. For many, the word "simulation" evokes the thought of climbing into a large, hydraulically supported box, whereupon some sadistic "old head" gets to dial-in a sequence of nerve-wracking disasters.

People who use simulations as analytical tools are keenly aware of this mindset. Fortunately, they were able to participate in fuller measure as the emphasis on simulations continued to increase over the past decade. Without the well-understood training application, the recognition (and budgets) of analytical modeling might still be unrealized.

Simulations also lend themselves to distributed interaction. The very first objective of the Defense Modeling and Simulation Office (DMSO) is to develop a common technical framework for M&S, so as to allow interactions across agencies and models.[2]

The advent of object-oriented simulation languages facilitates this interaction. Specifically, object orientation allows each logical piece of a simulation to be written as a separate module of computer code. In this way, the development, and even the processing of individual modules can now be the responsibility of organizations that have expertise in each of the sub-systems being modeled.

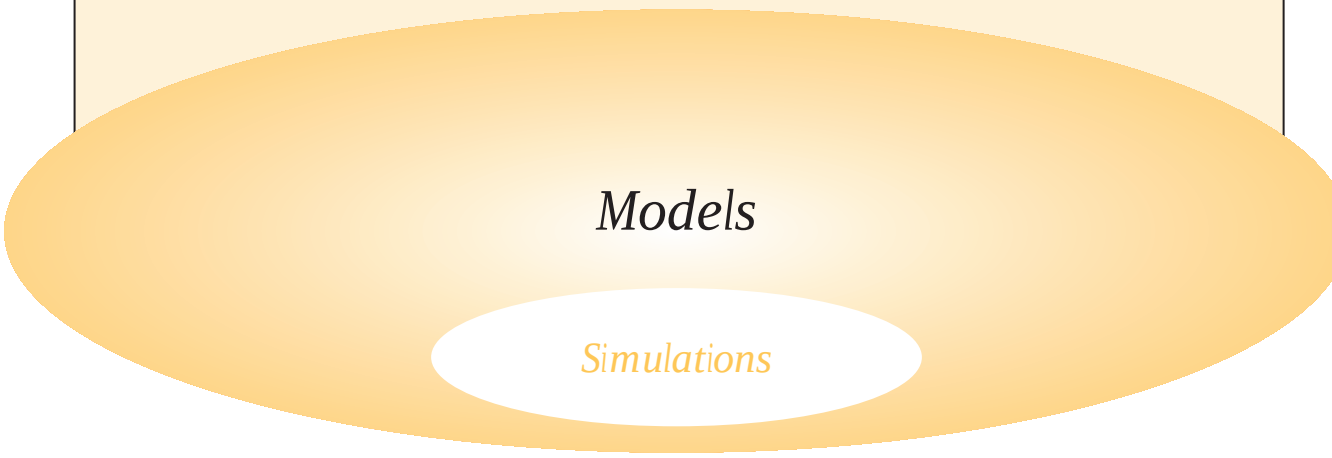
For example, an F-16 software "object" (developed by the Air Force) can be "plugged into" a model used by Marine Corps modelers in a simulation that might otherwise crudely approximate Air Force assets. Thus, simulations are perfect candidates to break out of the traditional stovepipe models that do not exploit the efforts of other organizations.

Finally, simulations allow the modeler to incorporate an enormous amount of modeling detail, as well as include a corresponding amount of scenario uncertainty. From the standpoint of realism, these features are indeed useful.

Furthermore, a high capacity for complexity allows the analyst to respond to stakeholders who challenge a model's validity based on a perceived lack of detail with respect to their particular, and perhaps parochial activities. To be fair, many military models *must* be complex, and must also incorporate the "fog of war" (otherwise known as uncertainty).

Baker is an Assistant Professor in the Department of Management, U.S. Air Force Academy, Colorado Springs, Colo. He holds a Ph.D. in Operations Research from the Naval Postgraduate School. Grabau is an analyst for the Air Force Studies and Analyses Agency at the Pentagon, Washington, D.C. He holds an M.S. in Operations Research from the Colorado School of Mines.

Models cover a broad spectrum of computer-based techniques; simulation is only one of many model types. Many DoD agencies have focused almost exclusively on simulation, although optimization models often present an equally effective capability.



Simulations can easily represent both of these attributes.

Why Shouldn't DoD M&S Efforts Focus Only on Simulation?

Given the advantages cited above, why *should* DoD consider alternate approaches when designing an analytical model of a complex system? Unlike the military, the private sector frequently relies on optimization models for key decisions. What benefits do optimization models (and other types) bring to the analytical decision process?

Perhaps foremost among the reasons to consider optimization models is the need to observe complex decision alternatives from multiple perspectives. Models may aid many important DoD decisions, but decision makers (rightfully) do not completely trust any of their models. Confidence in analytical recommendations can be greatly enhanced when two fundamentally different model types are considered. Thus, optimization models provide a *complementary* capability to simulations.

By their nature, optimization models describe "what's best?" as opposed to simulation models, which describe "what if?" As an example, consider the modeling of a strategic airlift deployment. A large U.S. Air Force simulation proceeds by loading cargo onto the first available aircraft, which is then routed according to a pre-selected prioritized list.[3]

In contrast, an optimization model of the same deployment is given aircraft and routing *options* for all cargo, and is left to schedule the *best* combination of aircraft and route for each cargo.[4] The two approaches are fundamentally different. Although the simulation describes how much cargo an existing deployment plan can move, the optimization will often provide insight as to how to *improve* that plan, or concept of operation. Consequently, optimization models provide a useful *alternative* to simulation.

Each model type has a significant strength; simulations can model highly detailed scenarios, while optimizations employ a scenario's resources more efficiently. This suggests a two-stage approach. An optimization model can be used as a simulation pre-processor to make important resource selection and scheduling decisions.

In turn, those decisions may be checked for feasibility by a more detailed, and perhaps stochastic (probabilistic) simulation. The simulation can then adjust the plans made by the optimization in order to accommodate its higher level of detail. In this way, the two modeling approaches are used *synergistically* – each offering its strengths to produce more accurate, and more insightful recommendations.

Optimization Models — Great Potential Benefit

The widespread use of M&S discussed in *Program Manager* provides incalculable benefits to DoD. However, part of the continued success of M&S relies on our awareness of the full range of available modeling techniques. Despite the overwhelming emphasis on simulation for modeling complex systems, optimization models have great potential benefit, and should be used in concert with existing simulations.

It is incumbent upon the acquisition community to be aware of this modeling capability *as a complement, alternative, and synergistic partner to simulation.*

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THE SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1000

1 April 1998

Honorable Albert Gore, Jr.
President of the Senate
Washington, DC 20510

Dear Mr. President:

Section 912(c) of the National Defense Authorization Act for Fiscal Year 1998 directs the Secretary of Defense to submit to Congress an implementation plan to streamline the acquisition organizations, workforce, and infrastructure. The implementation plan takes into account the review of acquisition organizations and functions done by the Department of Defense in accordance with section 912(d) and an assessment of acquisition organizations by the Task Force on Defense Reform in accordance with section 912(e). As you know, the Task Force on Defense Reform was disestablished when it delivered its report in November 1997. Consequently, the Under Secretary of Defense (Acquisition & Technology), as discussed with your staff, established a Defense Science Board Sub-Task Force on the Acquisition Workforce to conduct an independent assessment similar to that which would have been conducted by the Task Force on Defense Reform. I am forwarding that assessment to you by a separate letter. I have reviewed the Defense Science Board (DSB) report, have fully considered the DSB's conclusions and recommendations, and have incorporated the concepts in the recommendations, as appropriate, into my own report.

Over the last few years, we have witnessed an extraordinary partnership committed to real, long-term reform of our acquisition processes and structures. This partnership has comprised the Congress, prominently including you and the members of your Committee; private industry, especially our current suppliers, as well as those who would not (and in many cases, still do not) do business with the U.S. Government; the Administration, including the very top leadership; and our acquisition workforce that has been so eager for real change. As a result, significant progress has been made, and we are now in the process of facing and meeting the challenges of implementing those reforms.

Despite that remarkable progress, the reality is that we have only begun. As I have stated previously, to carry out our defense strategy into the 21st century with military forces capable of meeting the challenges of this new era, we must achieve additional fundamental reform in how the Department of Defense conducts business by implementing a real revolution in business affairs.

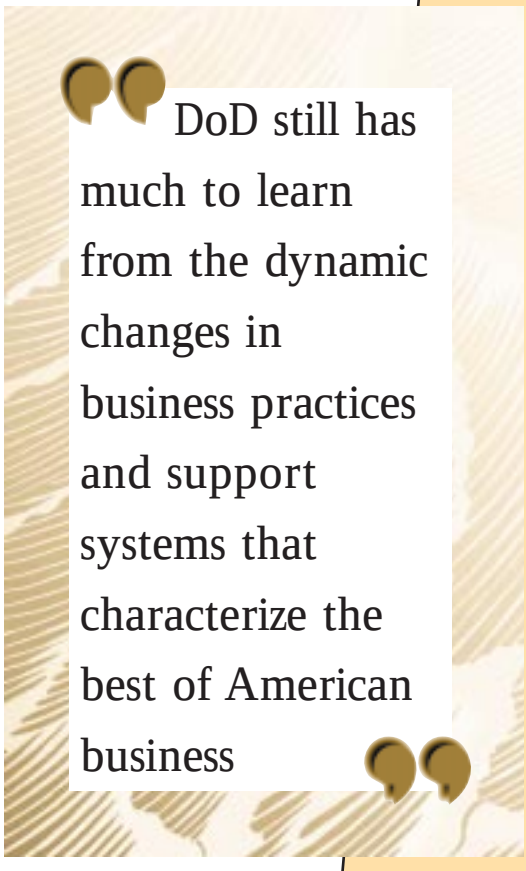
The Defense acquisition workforce has produced the finest weapon systems in the world. However, the Department and its workforce continue to labor under an organization, infrastructure,

and legal and regulatory morass that was developed over the course of the Cold War, which is incapable of responding to the rapid changes and unpredictability we face today. We continue to spend too much on infrastructure at the expense of equipping our forces. We have lengthy development, production, and support cycles that cannot keep pace with technological change or provide the kind of timely responses that our contemporary forces need. Finally, we have unreliable, aging equipment that causes us to invest in large inventories of spare and repair parts, resulting in enormous maintenance costs. Further, DoD still has much to learn from the dynamic changes in business practices and support systems that characterize the best of American business, which itself has undergone massive reform in recent years. All of this must change.

My vision of the acquisition workforce 10 years from now is one that is smaller and in fewer organizations; is focused on managing suppliers, rather than supplies; and is focused on the total cost of ownership to provide and support high-quality goods and services required by our warfighting men and women. It will be a workforce that is engaged primarily in working with the Services to determine affordability of requirements; helping to establish and execute budgets; working to reduce cycle times; establishing contractual vehicles that are easily accessed by our customers within DoD; overseeing contracts to make sure the work gets done on time, within tough performance parameters, and, of course, within budget; and, all the while, ensuring the public's trust and confidence.

The Department has already reengineered a number of processes in a manner that allows us to provide the required best-value goods and services to the warfighter, while reducing the workforce by over 42 percent from its peak in 1989. Further reductions are planned for this year and beyond. In addition, I am proposing a number of significant new initiatives that will accelerate the attainment of my vision. Those new initiatives are identified in the enclosure, in five categories: 1) restructure research, development, and test; 2) restructure sustainment; 3) increased acquisition workforce education and training; 4) integrated, paper-less operations; and 5) future focus areas (i.e., a price-based approach to acquisition and more fully integrating our test and evaluation activities into our acquisition process).

While I recognize the need to evaluate the benefits of an enhanced Joint Requirements Oversight Council and the adequacy of the Planning, Programming, and Budgeting System, I intend to take action through the Defense Management Council to evaluate both these areas.



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The actions that I am recommending are necessary to enhance the ability of DoD to make acquisition of the best available technology affordable and to keep our armed forces in a position of dominance. I must emphasize that merely cutting people, without some restructuring and other measures, will only result in hollowing out the "guts" of DoD's research, development, test, and support capabilities, retaining only the most senior people regardless of skills and technological knowledge, and preventing DoD from bringing in fresh scientific, engineering, and logistics management talent. That can only lead to diminished technological capability for our operational forces.

I have not included a request for enactment of any statutory changes as part of my report. However, the outcome of the studies that I have proposed may lead to recommendations for legislative changes in the future. In the long run, the benefits of taking the actions indicated in this report may not be as great without legislation, particularly legislation authorizing the two rounds of Base Realignment and Closure (BRAC) that I have proposed. Most of the proposed initiatives can be pursued without BRAC, and I intend to do so, consistent with the limitations of existing authorities. However, the reductions, in the long run, in both manpower and dollars will be smaller and more difficult to achieve, without new BRAC authority.

I ask you to join with me and the Department of Defense workforce to create an acquisition infrastructure that will allow DoD to buy products and services faster, better, and cheaper so that our customer, the warfighter, has what is needed to do the job assigned.

A copy of this report has been sent to the Speaker of the House of Representatives, Chairman of the Senate Armed Services Committee, Chairman of the House National Security Committee, Chairman of the Senate Appropriations Committee, Chairman of the House Appropriations Committee, Chairman of the Senate Appropriations Committee Subcommittee on Defense, and Chairman of the House Appropriations Committee Subcommittee on National Security.

Sincerely,

William S. Cohen

Enclosure: As Stated

Editor's Note: "Section 912 Report" — SecDef Cohen submitted his implementation plan to streamline the acquisition organizations, workforce, and infrastructure to the Senate and the House on April 1, 1998, in accordance with Section 912(c) of the National Defense Authorization Act for Fiscal Year 1998. For those interested in viewing the entire report, visit **http://www.acq.osd.mil/ar/** on the Acquisition Reform Home Page.

Excerpts from Statement of The Under Secretary of Defense for Acquisition and Technology, Honorable Jacques S. Gansler

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Before the Subcommittees on Procurement and Research and Development House Committee on National Security

February 26, 1998

Acquisition Reform

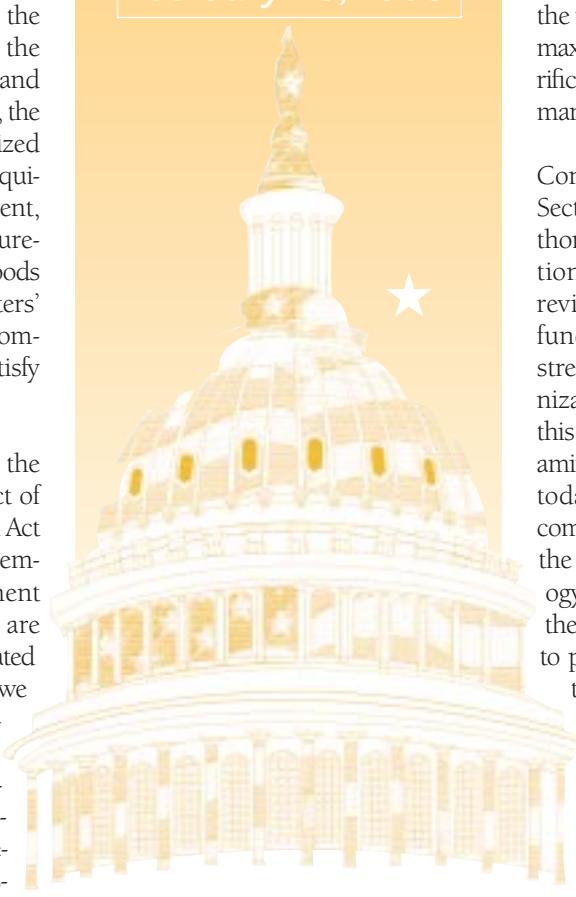
In February, 1994, in response to the legislative recommendations of the Acquisition Law Advisory Panel and the National Performance Review, the Department of Defense recognized the need to reengineer the entire acquisition system to ensure smart, efficient, and responsive development, procurement, and support of the best value goods and services that meet the warfighters' needs – relying upon a globally competitive national industrial base to satisfy its requirements.

Two significant pieces of legislation, the Federal Acquisition Streamlining Act of 1994 (FASA), and the Clinger-Cohen Act of 1996, along with a Presidential Memorandum, "Streamlining Procurement Through Electronic Commerce," are guiding our efforts. By forming integrated teams throughout the Department, we have made additional policy and regulatory changes in a number of areas including electronic commerce/ electronic data interchange, military specifications and standards, the procurement process, the contract administration process, systems acquisition oversight and review, and – particularly critical – in establishing metrics.

Acquisition reform is far from finished. We are expanding into new areas, seeking to capitalize on changes already made, and reengineering where still necessary to enable "better, faster, cheaper" acquisition.

Acquisition Workforce

The National Defense Authorization for Fiscal Year 1998 contains a provision in section 912(a) requiring that the Department reduce by between 10,000 and 25,000 the workforce in acquisition organizations (exclusive of civilians in maintenance depots).



Since 1989 the Department has reduced the workforce in acquisition organizations by 42 percent – over one-quarter million people. We have done extensive process reengineering through our Acquisition Reform initiatives in order to be able to operate effectively and efficiently with such reductions. However, we also know that infrastructure must continue to shrink if we are to afford modernization and readiness.

We take very seriously the mandate Congress has given the Department to reduce the workforce in acquisition organizations as much as possible by the beginning of next fiscal year. The Under Secretary of Defense for Personnel and Readiness, working with me, is gathering the information needed to determine the maximum possible reduction without sacrificing military readiness and the efficient management of the acquisition system.

Congress has given us a valuable tool in Section 912 of the National Defense Authorization Act for Fiscal Year 1998. Section 912 requires the Department to review acquisition organizations and functions and to develop a plan to streamline acquisition workforce, organizations, and infrastructure. I look at this requirement as an opportunity to examine the structure that we have in place today and, in light of the advances in commercial practices and processes and the new tools that information technology has given us, adapt that structure to the needs of the 21st century. We intend to provide the Congress a road map to the new acquisition infrastructure when we report to you April 1.

Continuing Education

There must be reductions in the entire defense infrastructure to provide resources for modernization and readiness. A smaller workforce will have to be a better qualified and better trained workforce, particularly with regard to new policies, practices, and processes stemming from acquisition reforms. This year I intend to institute a new program of continuing education, because much of what the workforce learned in school – even just a few years ago – is obsolete. This Committee has a long history of supporting workforce professionalism. I hope we can work together on this in the future.

Editor's Note: This information is in the public domain and may be accessed from the USD(A&T) Home Page at **http://www.acq.osd.mil/ousda/testimonies/** on the World Wide Web.

"Actions to Accelerate the Movement to the New Workforce Vision"

What's Ahead for Acquisition Education and Training?

Editor's Note: Chapter 3, "Increase Acquisition Workforce Education and Training," reprinted here in its entirety, is an excerpt from Secretary of Defense William S. Cohen's April 1 Report to the Congress, "Actions to Accelerate the Movement to the New Workforce Vision."

3. Increase Acquisition Workforce Education and Training (Section 912(d) Questions 10, 13, and 14)

Why Change is Needed

The civilian and military professionals in the acquisition workforce are the linchpin of the DoD acquisition system. Their efforts ensure that the U.S. Armed Forces have adequate quantities of the most technically advanced and reliable equipment and systems in the world.

The Department continues to strive to transform the acquisition workforce in response to a rapidly changing acquisition environment in which the leading-edge technology is often found in the commercial marketplace; where changing roles are required for government in its interaction with industry; and where the advancement of commercial practices can be used in defense acquisition in order to increase performance of systems while lowering costs and time to field and support the equipment. Members of the DoD acquisition workforce must become:

- More managers and leaders, and less hands-on doers.
- More focused on systems engineering, and less focused on "black box" component design.
- More capable of making "business" judgments based on insightful understanding of industry operations and technological change, and less guided by rule-based thinking.

What DoD is Already Doing

Since 1989 the Department has reduced the acquisition workforce by 42 percent — over one quarter million people. DoD has done extensive process reengineering through various Acquisition Reform initiatives in order to operate effectively and efficiently in spite of reductions. However, infrastructure must continue to shrink if DoD is to afford modernization and readiness.

A solid foundation for the education of the workforce has been established under the Defense Acquisition Workforce Improvement Act (DAWIA). The Defense Acquisition University (DAU), using its consortium of schools, has established 81 courses with over 1,200 offerings, educating approximately 35,000 members of the workforce per year. The material in these courses is work performance-specific and incorporates all of the Department Acquisition Reform initiatives. While our current system of technical acquisition training is highly effective, its dependence on classroom instruction brings a number of inefficiencies, such as time off the job, travel expense, and delivery delays can be inherent in system design. We must use distributed learning technologies to improve the affordability of our training system. DAU is accelerating its conversion of more than 50 percent of its curriculum to distributed learning through the use of an innovative web-based learning environment. This environment guides and supports students through the learning process. Instructors can track students' progress and provide individual assistance as needed. Students are able to interact online with faculty and other students. This robust environment reduces time needed to acquire knowledge and skills for enhanced job performance. It also provides education and training better, faster, and cheaper to the larger, acquisition-related workforce.

Since 1995, the DoD has conducted training programs through the use of satellite broadcasts. These satellite broadcasts have proven to be an effective means to provide timely and accurate information to the DoD workforce and the Department's industry partners about how DoD is changing the way it acquires needed goods and services. These sessions are video-taped and are available from the Acquisition Reform Communications Center (ARCC) to enable continuous education and training to the expanded acquisition-related workforce in DoD, other government agencies, and industry.

The first Acquisition Reform Day was held on May 31, 1996, with the objective of communicating the message of Acquisition Reform. A second event was conducted in March 1997 and emphasized the implementation of Acquisition Reform initiatives. A third event is planned for the week of May 4, 1998, with the theme of leading and embracing change. These communications, education, and training events have proven to be effective tools in achieving needed cultural change.

On May 29, 1996, the Under Secretary of Defense (Acquisition & Technology) established the Civilian Career Development program. This program is an opportunity for Acquisition & Technology career civilian staff members to seek out and complete developmental assignments in government or industry.

In the Fiscal Year 1996 National Defense Authorization Act, Congress provided for a civilian acquisition workforce demonstration project to determine the feasibility or desirability of proposals for improving the personnel management system. With the advances we have made in reforming the acquisition process, we believe this is an excellent opportunity to focus on reforming the civil service system that manages the people in the process. The workforce demonstration is a significant step in a systematic approach to develop a personnel management system that supports our new way of doing business. Immediately following enactment of the demonstration project authorization, the Department established a Process Action Team, made up of members from the Services and Defense Agencies, to work together with the unions, to develop a new personnel system. The Office of Personnel Management has approved the first of two *Federal Register* notices inviting public comment on the demonstration. The demonstration will begin after the end of the initial publication comment period, a public hearing, and the publication of the final *Federal Register* notice. The demonstration is expected to provide the personnel management tools necessary to conform the workforce to our transformation of acquisition systems and organizations.

Actions that Must Be Taken

3.1 Establish Training in Contracting for Services

Over the course of the last several years, DoD has focused its Acquisition Reform efforts on improving the acquisition of goods. As the Department moves into the 21st century, the amount of goods DoD buys will be reduced. DoD will increasingly adopt the commercial practice of purchasing services instead of things. This will require the Department to change significantly the way it thinks about, and actually acquires, services. To implement effectively these changes, DoD will need to train the entire acquisition workforce, and those who establish requirements, on this new focus. DoD will also have to develop tools to facilitate the change in behavior, and the structuring of the acquisitions themselves.

To implement this change, I will direct the Under Secretary of Defense (Acquisition & Technology), the Vice Chairman of the Joint Chiefs of Staffs, and the Service Chiefs to establish a team to develop training and tools which focus on acquiring services. The training and tools will include guidance on purchasing services to meet warfighter needs.

3.2 Institutionalize Continuous Learning for Acquisition Professionals

The smaller acquisition workforce of the future must understand and interact effectively with the commercial sector, leverage best business practices and technological advances for continuing acquisition process improvement, and possess strong management and leadership competencies. Therefore, the Department must strengthen its education and training programs to ensure development of these workforce attributes.

To that end, I will direct the Under Secretary of Defense (Acquisition & Technology) to complete the development of a reform-centered, continuous learning program that will supplement our well-established technical training curriculum for the acquisition workforce. The program should be designed to keep the workforce current with acquisition reforms, functional, and technical advances, and to improve its business knowledge and leadership competencies. Workforce standards should be strengthened to ensure development of a highly qualified, professional cadre of candidates for our most senior leadership positions. Major program elements, such as business education and leadership development, and program administrative elements should be competitively sourced to take advantage of best education and training practices in academic and commercial sectors. To minimize program infrastructure, distance learning delivery methods will be encouraged. The Under Secretary of Defense (Acquisition & Technology) will coordinate the program with the Under Secretary of Defense (Personnel & Readiness).

3.3 Enhance "Commercial Business Environment" Education and Training

DoD has traditionally relied upon in-house institutions, such as the Defense Acquisition University, for the majority of education and training for the acquisition workforce. That education and training has produced practitioners skilled in the way DoD has traditionally done business. The above actions will provide for enhancement of both the education and training within DoD institutions and will provide additional educational opportunities through such means as distance learning.

In addition to enhancing the training and educational offerings and opportunities at the Defense Acquisition University, it is also important that DoD recognize that a good portion of what the Department seeks to accomplish involves the introduction, into the DoD acquisition process, of those practices and techniques that, while commonplace in the commercial environment, will be new to the government arena. As such, DoD's education and training efforts must also include access to appropriate courses (either existing or designed specifically for the government acquisition workforce) at top business and other academic institutions, as well as new and innovative partnerships with the private sector, that can avail the acquisition workforce of additional and vital perspectives and training on key commercial practices.

I will direct the Under Secretary of Defense (Acquisition & Technology) to develop a program specifically aimed at providing training on commercial business practices. The program will include market research, commercial pricing, commercial financing, commercial terms and conditions, joint ventures, etc.

3.4 Recruit, Develop, and Retain Technology Leaders

The expertise DoD needs at any point in time might very well reside in industry or academia, particularly in fields where the pace of technology change is rapid. It is often difficult to convince individuals in the private sector with such expertise to accept government positions primarily because of their resistance to becoming subject to the rules that make it difficult for senior DoD managers to go to work in the commercial sector upon leaving Defense.

In addition to increasing mobility between government and industry jobs, individual employees will be asked to be more geographically mobile in order to build the broad base of skills and experience that will be expected as in-house managers take on their new role, involving less doing and more managing. Most new members of the acquisition workforce should be given five-year renewable term appointments. This will allow for necessary turnover to refresh continually technology and management skills, and will provide incentives to maintain skills in the smaller workforce.

I will direct the Under Secretary of Defense (Acquisition & Technology) to work with the Under Secretary of Defense (Personnel & Readiness) to analyze the issues involved and to develop a legislative package that will detail ways to open the door between government and industry for high-technology skills, loosen the rules governing Intergovernmental Personnel Act employees, and promote the use of innovative hiring approaches that enable the rapid formation of renewable term contracts allowing an individual to return to industry after serving with DoD for four or five years, without impinging on the need for complete integrity in our acquisition and procurement decisions. There must also be an active program to provide the necessary incentives for the DoD to retain the individuals with the specialized skills needed by the government in the future information age.

3.5 Identify the Future Acquisition Workforce

Our experience with acquisition workforce formation and management under the Defense Acquisition Workforce Improvement Act (DAWIA), and our vision of future workforce composition and competency, provide important insights regarding needed improvements in workforce identification. As specified in the Department's report to the Congress in response to section 912(b) of the National Defense Authorization Act for Fiscal Year 1998, the defense acquisition workforce is defined as "the personnel component of the acquisition system."

In light of this definition, the Under Secretary of Defense (Acquisition & Technology) is currently refining a workforce identification methodology that will include all personnel employed in acquisition occupations wherever they are located in DoD, plus those in acquisition support occupations if they are employed in certain organizations.* This approach to workforce identification will better represent the acquisition workforce, recognize degrees of involvement with the acquisition system, and improve workforce management and development. Certain conforming changes to DoD Instruction 5000.58 will need to be made as a result of this workforce identification effort

** There are various measures of the acquisition workforce: 1) DoD Instruction 5000.58, Acquisition Organizations, 355,299 people; 2) Pub.L. no. 101-50, Defense Acquisition Workforce Improvement Act, 105,544 people; and 3) Jefferson Solutions Report, revised Packard Commission, 177,613 people.*

Impact on Acquisition Workforce

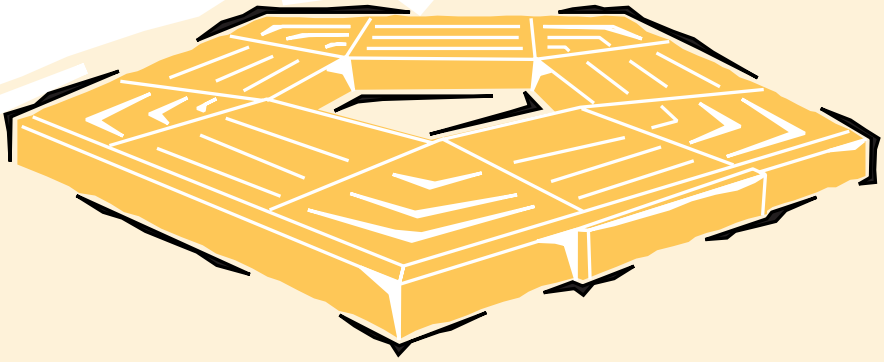
The initiatives described above will not result in major direct reductions in the acquisition workforce. In essence, the initiatives described in this section are "enablers" that will ensure that the future workforce has the experiences and competencies that will be required as we change the nature of the work that they are expected to perform.

Outcome

Improved education and training, and the adoption of new workforce skills, will increase the quality of the acquisition workforce allowing the use of new better, faster, and cheaper practices for acquiring goods and services.

Legislative Changes Under Review

Some of what is outlined above can be accomplished without legislative action. However, as DoD seeks to further its efforts to attract and retain high-quality technology and business leaders, a number of statutes will be reviewed, with any recommended changes being forwarded through the Office of Management and Budget to the Congress.



The smaller acquisition workforce of the future must understand and interact effectively with the commercial sector, leverage best business practices and technological advances for continuing acquisition process improvement, and possess strong management and leadership competencies. Therefore, the Department must strengthen its education and training programs to ensure development of these workforce attributes.

Acquisition Reforms Save Money and Improve Service

Prepared Statement of Dr. Jacques S. Gansler, Under Secretary of Defense for Acquisition & Technology, to the Acquisition and Technology Subcommittee, Senate Armed Services Committee

"Acquisition Reform, Mr. Chairman, is not a slogan. It is a fundamental transformation in our organization, structure, policies, and processes – one which our acquisition workforce welcomes and which we all will work hard to achieve."

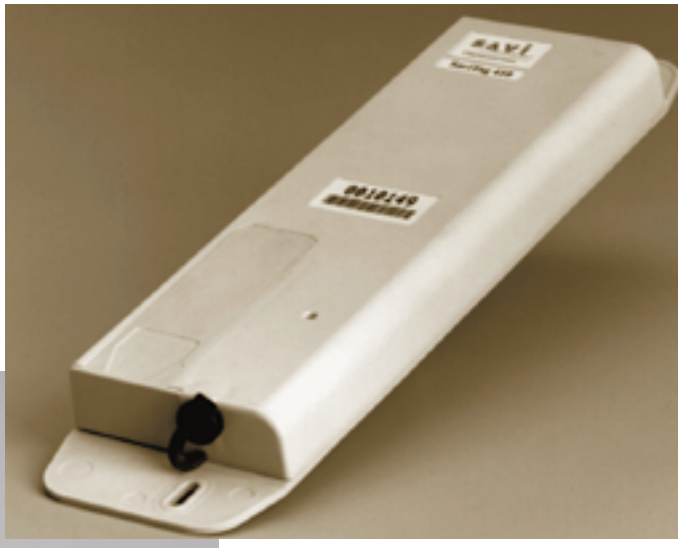
Dr. Jacques S. Gansler
Under Secretary of Defense
(Acquisition & Technology)
March 18, 1998

March 18, 1998

TRW'S PRODUCTION OF MILITARY-UNIQUE CIRCUIT BOARDS FOR THE AIR FORCE'S F-22 FIGHTER AIRCRAFT AND THE ARMY'S COMANCHE HELICOPTER ON THE SAME PRODUCTION LINE AS ITS HIGH-VOLUME COMMERCIAL ELECTRONICS PRODUCTS HAS RESULTED IN 30-[PERCENT TO] 50-PERCENT SAVINGS AND A PRODUCT THAT ACTUALLY EXCEEDS [DOD'S] REQUIREMENT FOR OPERATING IN A HIGH-TEMPERATURE ENVIRONMENT. PICTURED: RAH-66 COMANCHE HELICOPTER; F-22 RAPTOR. Photos courtesy The Boeing Company

Boeing Aircraft's rapid development and deployment of the 777 commercial aircraft show us that [DoD] can do better. From the time development started until the time the first plane certified for flight rolled off the assembly line was only five years. Pictured: The Boeing 777-300 takes to the skies for the first time Oct. 16, 1997, and begins the first of more than 1,400 flight-test hours planned for this newest member of Boeing commercial jetliners.

Photo courtesy The Boeing Company



The 21st century warfighter will be supported by a logistics team that includes advanced, secure information technology to deliver rapid crisis response; track shipments enroute; redeploy them, if necessary; and provide sustainment directly at all levels of operations. Pictured: The SaviTag, developed by Savi Technology — a miniature radio transceiver with an embedded microcomputer. When attached to military cargo containers, or any other crate or container used for transport, the SaviTag will automatically track the container's location and contents.

Photo courtesy Savi Technology

Mr. Chairman, Sen. [Joseph I.] Lieberman, members of the subcommittee and staff.

I appreciate the opportunity to appear before the subcommittee...today to report on our acquisition reform efforts. I am pleased to have with me the senior acquisition executives of each of the Services and Brig. Gen. Tim Malishenko, Commander, Defense Contract Management Command. Before taking your questions, I want to spend a few minutes summarizing our current defense acquisition posture and my priorities for achieving our overall transformation goals. Following my presentation, all of us will be pleased to answer any questions you have.

Common Vision

When I appeared before this subcommittee last week, Mr. Chairman, to report to you on our overall acquisition strategy, I spoke of a common vision that all of us sitting in this room share: a 21st century combat force that is fast, lean, and mobile; prepared for battle with total battlespace situational awareness; able to strike with precision under all conditions; and protected with full information assurance. This is the goal of the "Revolution in Military Affairs."

We also share a vision about the way that combat force will be sustained. The 21st century warfighter will be supported by a logistics team that is fully adaptive to the needs of dispersed and highly mobile combat teams — combining advanced, secure information technology and modern transportation systems to deliver rapid crisis response; track shipments enroute; redeploy them, if necessary; and provide sustainment directly at all levels of operations — a rapid and smooth flow from factory to foxhole.

Our vision for the acquisition workforce that supports our combat forces is a team of highly professional men and women who focus on managing suppliers, rather than supplies — professionals who perform those functions that fulfill the core responsibility of the Department: policy management, budgeting, and oversight.

For our vision to become a reality, the Department of Defense must undertake a revolution in the way that we do business. Although our military is clearly the strongest in the world, our defense establishment is still working to keep pace with a commercial sector that — restructured, re-engineered, and revitalized — is now thriving in a dynamic global marketplace. We must capitalize on the lessons we have learned from

successful commercial restructuring to adopt modern business practices, consolidate and streamline, embrace competitive market strategies, and eliminate or reduce excess support structures.

Acquisition Reform, Mr. Chairman, is not a slogan. It is a fundamental transformation in our organization, structure, policies, and processes — one which our acquisition workforce welcomes and which we all will work hard to achieve. It is an undertaking that the Congress has supported in the Defense Acquisition Workforce Improvement Act, the Federal Acquisition Streamlining Act, the Federal Acquisition Reform Act, and the Information Technology Reform Act — major legislative initiatives which put the full authority of Congress and the administration behind this effort. Its goals are clear: to do the job better, faster, and cheaper. We are transforming the way we do business — cutting costs and infrastructure — to free up funds for modernization.

Today, we will report to you on the progress we have made and our plans for the future of Acquisition Reform.

Change Takes Time

During the past few years, we have undertaken some significant efforts and have made measurable gains, but we still have a long way to go. A cultural change of this magnitude takes time — and sustained effort. For the last 10 years, we have put off modernizing our forces, with procurement spending dropping by more than 70 percent. We can no longer put off modernization. We must maintain our superior level of combat readiness and force structure and improve our equipment quality and responsiveness — and do all this at lower cost.

This can and will be done. To prove it can be done, I point to what U.S. world-class commercial companies have demonstrated over the past few years in order to become competitive. They focused on time as the critical variable. They have shown that they can develop and deploy with a much-reduced cycle time, meet faster support response time requirements for parts delivery, deal with unanticipated surge requirements, and overall, perform at much higher levels. All this reduces costs. Let me give you just two examples of the potential for dramatic improvements.

The Department of Defense averages 13 to 15 years from weapon initiation through development to initial production. As budgets have been cut, these cycle times have often been stretched even farther. This is expensive and, worse still, prevents us from deploying modern systems into the field quickly enough.

Boeing Aircraft's rapid development and deployment of the 777 commercial aircraft show us that we can do better. From the time development started until the time the first plane certified for flight rolled off the assembly line was only five years. While this commercial aircraft is in no way as complex as many of the military systems under development, we can still learn important lessons in reducing cycle time from the innovative processes of commercial firms. Long cycle times decrease our flexibility and promote obsolescence. The F-22 fighter, for example, is not yet into production but, with electronic products becoming obsolete in as little as 18 months, already contains outdated parts.

Response time is another serious problem we face. The Army stocks numerous parts manufactured by Caterpillar. Average delivery time for those parts, when a base runs out, ranges from 21 to 36 days here in the United States or 50 to 68 days overseas. Caterpillar itself resupplies domestic commercial dealers in one or two days and overseas dealers (in 100 countries) in two to four days at most — or they pay for it. To achieve these results, they use modern information technology and rapid transportation, instead of carrying huge inventories. And our volume is not an acceptable excuse: During the height of Operation Desert Storm, military requisitions peaked at 35,000 deliveries per day (on a three-day moving average) — far short of the performance of commercial package systems (such as FEDEX and UPS) that handle millions of packages overnight.

Our acquisition programs are a legacy from a relatively stable era of known threats. The enemy's moves were fairly predictable, and long-range programs could be structured to meet the limited range of hostile activity we faced. This is obviously not the case today, and our acquisition models for the future must take this into account.

We live in an uncertain and unpredictable world, a world where individual terrorists, transnational actors and rogue nations can unleash firepower in many ways as terrifying as that of a major global power. They represent a different and difficult challenge to forces organized and equipped around traditional missions. They are willing to employ weapons of mass destruction (chemical, biological, and nuclear). Also, they have access to much of the most advanced technology and skills through the worldwide arms market. Finally, they cannot easily be deterred, and they often respect no boundaries, whether political, organizational, legal, or moral.

This threat militates that we put in place an acquisition system that can field products and systems quickly — within greatly reduced cycle time. Providing our 21st century warfighter with systems and sustainment on an accelerated timetable should dramatically improve readiness — and save money. We are changing to meet the requirement of greatly reduced cycle time, and we will accelerate that transformation as our Acquisition Reform initiatives continue to gain momentum.

Therefore, as I look to the future, I see three main tasks ahead of us: to modernize our current weapons systems, to develop and deploy the major new systems and subsystems required for 21st century operations, [and] to support those systems efficiently and effectively — and do all three of these at lower cost, within drastically reduced cycle times, and with greater performance. Last week, in my testimony before this subcommittee, I outlined the steps we will take

to complete these tasks and fulfill our modernization goals — essentially addressing the issue of hat we buy. Today, I will report to you on the other side of the coin — how we buy it and how we sustain it.

Last week, we discussed the likelihood that, although there will be no major increase in the total defense budget during the next few years, we must meet our commitment to allocate steadily increased funding to the procurement account to pay for modernization. Therefore, the only way to generate the necessary dollars — without impacting our warfighting capability — is to shift large shares of our resources from the support and infrastructure area (which now takes more than 65 percent of our total dollars and occupies over 60 percent of the people employed by the Department) into the combat and modernization area, and to do this while achieving better quality and improved readiness.

This will require a fundamental transformation in our acquisition and support programs. We must pay for our Revolution in Military Affairs by engaging in a Revolution in Business Affairs. To do this, I have set in motion five priorities for our acquisition team:

Continued Acquisition Reform

We will aggressively pursue and fully implement the acquisition reform initiatives of the past few years; and add to these, where appropriate. As the members of this subcommittee know well, real reform in our acquisition of weapons and major systems has taken place in recent years — reform made possible by your leadership and commitment and by a partnership for reform that includes the Congress, the Department, and the industrial sector.

This reform must continue to spread to all other areas and become part of the way every one does business — e.g., better inventory management; an increase in the use of commercial practices and distribution systems to satisfy materiel requirements; more competitive sourcing of current in-house work; and greatly expanded purchase of common-use, commercially available items.

The Defense Logistics Agency has used commercial buying practices and purchased high-quality commercial items (instead of military-standard items) which, from a sample of more than $190 million worth of items, resulted in savings of more than 20 percent in medical supplies and 22 percent in clothing and textiles.

Civilian/Military Industrial Integration

We must work to bring about far greater civilian/military industrial integration. We seek a greatly expanded partnership with a revived and prospering commercial industry — not a partnership in which we become simply the pawns of commercial products and processes, but a dynamic and vigorous engagement that, through research and development, creates technically advanced products and systems with common applications and that, through use of flexible manufacturing, allows production of defense-unique items on the same lines with high-volume commercial items.

One example of the latter, that comes to mind, is TRW's production of military-unique circuit boards for the Air Force's F-22 fighter aircraft and the Army's Comanche helicopter on the same production line as its high-volume commercial electronics products. This has resulted in 30- [percent to] 50-percent savings and a product that actually exceeds our requirement for operating in a high-temperature environment.

Modern, "flexible" manufacturing of differing products on a common production line will allow this concept to greatly expand in the future. To achieve this we must reduce or eliminate, where practical, those unique terms and conditions (including unique cost-accounting systems) we previously established for doing business with the government. This will not only improve the Department's ability to get goods and services faster, better, and cheaper, but will also help our domestic industrial market compete in the global arena.

Let me give you just two examples of how shifting to commercial practices saves us money. The Defense Logistics Agency has used commercial buying practices and purchased high-quality commercial items (instead of military-standard items) which, from a sample of more than $190 million worth of items, resulted in savings of more than 20 percent in medical supplies and 22 percent in clothing and textiles. The logistics response time differential, due to using commercial practices, improved by 50 percent and, when prime vendor practices were used, improved by 95 percent.

Using commercial business practices over the past five years, the DLA wholesale inventory alone was reduced $721 million, a 30-percent savings. This shows the dramatic savings that can result when we adapt commercial practices to our military requirements. These practices must become widespread!

As you know, Mr. Chairman, there have been isolated instances where we have failed to carry out properly the changes we are making. I am certain that you appreciate the fact that, as we begin what amounts to a complete restructuring of the way we do business, we are going to make a few mistakes. That is regrettable.

Such an error was made, for example, in dealing with two commercial suppliers. In the first case, we paid more for sole-source commercial items purchased from the company's catalog than we had paid for the same items when we obtained cost data from the company (something the buyer should have observed, but failed to do). We also made repetitive purchases without leveraging

our buying power to get substantial discounts off the catalog price. When this was found, we worked with the Department's Inspector General to investigate the problem and came up with solutions.

We are now providing additional guidance and training to our acquisition workforce on obtaining fair and reasonable prices for commercial items. We have negotiated a single contract for these parts, based on all the Department's requirements, and were able to obtain a substantial discount off the company's catalog prices.

In the second case, we negotiated a contract for direct delivery on an "as needed" basis. This contract eliminated the need for us to forecast, warehouse, and maintain these parts. The company guaranteed delivery of these parts at specified locations within agreed-upon time frames. We then mistakenly issued orders against the contract for large quantities of parts for delivery to our warehouses.

The price we paid was too high because the contract was based on delivery of small quantities for direct delivery to specific locations. Some of these parts were also mistakenly coded as "sole source" when they should have been purchased competitively. As a result, the Defense Logistics Agency has been working with its hardware centers to ensure that this contract is used as intended, that specific actions are taken to improve corporate contracts overall, that additional training is made available, and that detailed policy guidance on determining fair and reasonable prices for commercial items is provided to contracting offices. These improvements will help us to correct problems we have identified.

The mistakes we made in these isolated cases were based upon a number of factors. We failed to take advantage of our buying power, and we failed to understand what we were buying and what was included in the prices. We responded quickly to these mistakes. We developed training to help our buyers better understand the new dynamic our changed marketplace provides, and we are developing tools to help them make better decisions.

What is important to emphasize is that these were isolated and rare cases. In the overwhelming majority of cases, using commercial practices and buying commercial items has paid huge dividends in savings, responsiveness, and quality.

Support and Infrastructure Restructuring

The Department must take specific actions to shift the major share of its resources from support to modernization and combat. Reducing support and infrastructure costs will make more of our limited funds available for modernization and deployment of new systems and subsystems. Another critical element is competitive sourcing of all non-inherently governmental work.

For example, DoD has routinely used public/private competitions (under the provisions of OMB Circular A-76) that have resulted in about a 50-50 split on public/private winners, a 20-percent average savings when the public sector won, and close to 40-percent savings when the private sector won, thus demonstrating that we can and do benefit significantly when we introduce competition into the commercial activities arena.

With further rounds of BRACs [base realignment and closure] in 2001 and 2005 (which are an essential part of our overall transformation strategy), [and] greatly expanded competitive sourcing and other such actions to achieve infrastructure and support reductions, we can shift tens of billions of dollars a year to modernization and combat — while actually improving our support to the forces!

Re-engineer DoD Logistics

We must totally re-engineer our DoD logistics system. The goal of "focused logistics," outlined by the Joint Chiefs of Staff in [Joint] Vision 2010, which will ensure that our combat forces have the right equipment on-hand at the right time, is a high priority for all of us as we support the Revolution in Military Affairs. Advanced information systems and rapid transportation are keys to our success in this area. I can assure you that this is an area that we are pursuing aggressively and immediately.

Workforce Enhancement

Finally, we must focus on training and educating our acquisition workforce to meet the demands of this massive transformation effort. Training our workforce in new ways of doing business must be our No. 1 priority. Unless we all know how best to do what we are doing and comprehend the benefits to be derived from doing it better, Acquisition Reform will not succeed.

A solid foundation for the education of the workforce has been established under the Defense Acquisition Workforce Improvement Act. Today, Defense Acquisition University courses are moving from the traditional classroom to sites where the workforce is located. A modern "distance" learning plan will evaluate, by FY [fiscal year] 2000, all acquisition courses taught by the Defense Acquisition [University] and convert as many as feasible and desirable to distance learning and computer-based training. Our goal is to convert at least 25 percent of the Defense Acquisition University courses to distance learning by the end of FY 99.

Since 1989, the Department has reduced the workforce in acquisition organizations by more than 42 percent — over one-quarter [of a] million people. We have learned to operate effectively and efficiently with such reductions. However, we also know that infrastructure must continue to shrink if we are to continue to afford modernization and readiness.

Congress has ordered the Department to reduce the workforce in acquisition organizations by the beginning of next fiscal year. The Under Secretary of Defense for Personnel and Readiness is working with me to determine the maximum possible reduction we can make without sacrificing military readiness and the efficient management of the

acquisition system. A report is due June 1 of this year.

Also, Section 912 of the National Defense Authorization Act for Fiscal Year 1998 requires the Department to review the acquisition community to develop a plan to streamline the workforce, organizations, and infrastructure. This is an opportunity to examine the current structure in light of advances in commercial practices, processes, and information technology. Our report to the Congress on Acquisition Workforce Reform is due on April 1.

Measuring Our Progress

As you can imagine, Mr. Chairman, there are significant barriers to implementation of the reforms I have discussed today. Therefore, one of the major requirements of our transformation strategy is the development of a specific action plan for meeting our goals. We have set hard targets and tough standards to measure the progress of our reform efforts. We have established interim milestones and a layered set of metrics to determine how actual accomplishments measure up to Secretary Cohen's Defense Reform Initiative and to the quantitative goals we have committed to the Vice President in the National Performance Review — in areas such as development cycle time, support response time, weapon system cost reduction, and paperless business processes.

We also need the continued commitment and support of Congress — as you have provided in the past. Acquisition Reform will provide the resources to do that. I appreciate your past support and count on your continued support to meet these goals.

Editor's Note: This excerpt from Defense Issues, published by the American Forces Information Service, a field activity of the Office of the Assistant Secretary of Defense (Public Affairs), Washington, D.C., is in the public domain and may be viewed at **http://www.defenselink.mil/pubs/di98** on the DefenseLINK Home Page. Parenthetical entries are speaker/author notes; bracketed entries are editorial notes.

Dr. Franz Frisch, Popular DSMC Professor Retires

Steeped in History, Frisch Remains DSMC's "Legend in His Own Time"

"Witty," "colorful," "unique," "WWII aficionado" — all words used to describe popular professor, colleague, and friend, Dr. Franz A.P. Frisch, a member of DSMC's Research, Consulting, and Information Division. Franz retired from federal service effective June 3. He first joined the DSMC faculty in 1978 as Chief of the Technical Management Division, left for employment with the Navy in 1981, and rejoined DSMC in 1987.

A private in the German Army for nine years, Franz was an artillery *soldat*, or German simple (common) soldier, whose battalion participated in numerous Panzer assaults during WWII. Drafted from his home in Vienna, Austria, in 1938 he saw action in the German invasions of Poland in 1939, which began WWII; France in 1940; and the Soviet Union in 1941. In Russia, his unit reached the outskirts of Moscow before the Soviet counterattack and the extreme bitter winter cold forced the Germans to retreat.

In 1943, his artillery unit was assigned to defend Sicily against the invading Americans. Retreating to Italy, his battalion fought the American advance, including at the bloody Battle of Casino, northward up "the boot," where the Americans captured him near the Austrian border in March 1945, two months before Germany surrendered. He spent the next two years in a prisoner of war camp in Italy before returning home.

Following the war, Franz completed his education at the Technical University of Vienna, attaining a doctorate in technical science. After a successful career in shipbuilding and shipyard management in Germany, he was invited to the United States in 1958 to testify in subsidy hearings at the Maritime Administration.

He has been on the DSMC faculty for more than 13 years, and was an Adjunct Professor for Virginia Polytechnic Institute and State University (VPI), as well as Massachusetts Institute of Technology (MIT), where he taught graduate courses in Advanced Engineering Economy and Management Concepts.

Published papers written by Franz include subjects concerning transportation, naval architecture, economy, and management.

In 1995, former DSMC Professor Wilbur D. Jones collaborated with Franz to research and write an article on his campaigns. The resultant article, published in *World War II* magazine, contained Franz' memoirs and numerous photographs he took on campaign showing the destruction of war, German Army camp life, fellow comrades, and the soldiers enjoying leisure time.

A veritable institution around the DSMC campus, Franz will be sorely missed.

OASD PUBLIC AFFAIRS NEWS RELEASE

DoD Announces Civilian Acquisition Workforce Personnel Demonstration Project

Photo by Richard Mattox

AT A PENTAGON CEREMONY ON FRIDAY, APRIL 17, PROJECT MANAGER GREG GIDDENS FROM THE OFFICE OF THE UNDER SECRETARY OF DEFENSE (ACQUISITION AND TECHNOLOGY), DELIVERED A COPY OF THE *FEDERAL REGISTER* TO FORMER ACTING DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION REFORM), DONNA RICHBOURG AND DEPUTY ASSISTANT SECRETARY OF DEFENSE (CIVILIAN PERSONNEL POLICY), DR. DIANE DISNEY. BY ANNOUNCING DOD'S PROPOSED CIVILIAN ACQUISITION WORKFORCE PERSONNEL DEMONSTRATION PROJECT IN THE *FEDERAL REGISTER*, GIDDENS AND THE OFFICE OF PERSONNEL MANAGEMENT FULFILL AN OBLIGATION, BY LAW, TO PUBLISH A NOTICE OF INTENT TO IMPLEMENT THE DEMONSTRATION PROJECT. PICTURED FROM LEFT: PAT STEWART, CIVILIAN PERSONNEL MANAGEMENT SERVICES; DR. JAMES MCMICHAEL, DIRECTOR, ACQUISITION EDUCATION, TRAINING, AND CAREER DEVELOPMENT; GIDDENS; RICHBOURG; DISNEY; HELEN ONUFRAK, OPM PROJECT MANAGER, DEMONSTRATION PROJECT TEAM; RICHARD CHILDRESS, DEPUTY DIRECTOR, ACQUISITION WORKFORCE PERSONNEL DEMONSTRATION PROJECT; THOMAS GARNETT, PRINCIPAL DIRECTOR, OFFICE OF THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (CIVILIAN PERSONNEL POLICY).

The Department of Defense, in cooperation with the Office of Personnel Management, announced last week its intent to conduct the Department's Civilian Acquisition Workforce Personnel Demonstration Project.

The demonstration project will examine proposed changes in employee development, classification, and compensation for the civilian acquisition workforce and supporting personnel. The Fiscal Year (FY) 1996 and FY 1998 National Defense Authorization Acts encouraged the Department of Defense to conduct this functionally based project.

The goal of the five-year project is to enhance the quality, professionalism, and management of the DoD acquisition workforce through improvements in the human resources management system. The Office of Personnel Management has approval authority for the project and will monitor its progress.

The demonstration is expected to cover a large segment of the civilian acquisition workforce, including organizations in the military Services and DoD agencies engaged in acquisition work. It includes employees assigned to positions under the Defense Acquisition Workforce Improvement Act (DAWIA). The project may, however, extend to non-DAWIA employees who are members of teams where: (1) more than half the team consists of members of the acquisition workforce; and (2) the rest are supporting personnel assigned to work directly with the acquisition workforce. As proposed, this project will include various organizational elements of the Air Force, Army, Navy, Marine Corps, Office of the Secretary of Defense, Defense Advanced Research Projects Agency, Defense Accounting and Finance Service, Defense Information Systems Agency, and Defense Logistics Agency.

Dick Childress, deputy program manager for the demonstration, estimates the project ultimately will cover up to 40,000 employees in the military Services and DoD Agencies. "This is potentially the largest personnel demonstration, not only in the Department of Defense, but in the entire Federal Government," Childress said.

A demonstration project process action team was chartered in September 1996, and hundreds of employees have been involved in project development. The Defense Partnership Council unions were briefed early in the project development stage. Demonstration project team members will continue to meet with these officials throughout the process. The Department of Defense will honor its bargaining obligations for union bargaining unit members proposed for coverage by the project.

The announcement of the demonstration and a 75-page project plan were published in the March 24 *Federal Register*. The notice was also posted on the demonstration's home page on the Internet at: **www.crfpst.wpafb.af.mil/demo**. Publication of the plan in the *Federal Register* was "a milestone," said Childress.

The demonstration will examine the feasibility of instituting the following changes to current personnel practices:

Developmental Assignments and Educational Opportunities — expanded opportunities for employees to obtain temporary assignments with universities, industry, and other governmental or nonprofit organizations; and possible financial assistance if employees want to earn academic degrees or training certificates.

Broadbanding — a way to group the current [General Schedule] (GS) grades into broader categories. Instead of having 15 GS grades, the project will use three or four broadband levels that encompass multiple GS grades. Employees will be converted from their existing grades and steps to the new system without loss of pay. Similar occupations will be grouped together into one of three career paths: Administrative Support, Technical Management Support, and Business Management & Technical Management Professional. Pay ranges for broadbands will vary by career path. An advantage of broadbanding is that "Employees can move seamlessly within their broadband level without competitive personnel actions based on their contributions," said Greg Giddens, the project's program manager.

Contribution-based Compensation and Appraisal System (CCAS) — a system that forges a stronger link between employees' contributions and their compensation. Under the project, employees could rise faster through the pay range of their broadband, Giddens said.

The *Federal Register* notice provides two ways to submit written or oral comments on the project proposal. The first and primary way is by writing to OPM at the address provided in the notice. The second is through a series of public hearings, scheduled as follows: April 23 at Ft. Belvoir, Va.; April 30 in Los Angeles, Calif.; and May 5 at Wright-Patterson AFB, Ohio. The 60-day period for public comment will remain open through May 26, 1998.

Process action team members will review all comments on the plan, Childress emphasized. "We will acknowledge receipt of all items and review everything that comes in. We will change things that look like they need to be changed and then publish a final notice in the *Federal Register*." Thirty days after publication of the final notice, DoD components may begin to implement the demonstration.

This project builds on the features of demonstrations now under way at the Air Force Research Laboratory, Department of the Navy (China Lake and San Diego), and National Institute of Standards and Technology (NIST). The long-standing Navy and NIST demonstrations have produced impressive statistics on employees' job satisfaction compared to figures for the federal workforce in general. "So in addition to other benefits," Giddens said, "we expect that this demonstration will result in more satisfied employees."

"We're really trying to create a system that is more suited to the acquisition environment than perhaps the current system is — that tries to recognize people for what they are contributing to the mission. We are really trying to make a better environment for the employees as well as the organization," Giddens stressed.

Project evaluation will be based largely on employees' perspectives, gathered via workforce surveys. An initial, baseline attitude survey will be distributed to employees in April. A full range of evaluation measures will be collected throughout the project's term.

Editor's Note: This information is in the public domain on the World Wide Web at **http://www.defenselink.mil/news** on the DefenseLINK News Home Page.

Source Selection in a Streamlined Acquisition Environment

The Means for Sound Source Selection Has Always Been In Our Grasp — *Creativity*

LT. COL. STEVE W. GARDNER, U.S. AIR FORCE

Since the advent of "Acquisition Streamlining," many good ideas have found their way into print, most of which purport to be the one best way to do streamlined acquisition. Unfortunately, many of these approaches miss the mark since streamlining is not a single method of doing business, but is instead a loose set of guidelines to be interpreted and applied with common sense and integrity.

Nowhere is this more apparent than when applying a streamlined approach to source selection. Previous source selection backbones (statement of work, government specifications and standards, etc.) take on entirely new meanings or even completely disappear during a streamlined source selection. When properly used, a streamlined source selection can provide significant benefits in acquiring technologically superior systems in the least possible time.

This article discusses some of the lessons learned from a recent streamlined source selection and furnishes some hints to program managers conducting source selections.

What Makes Sense?

With the emphasis on streamlining, a program manager faces a wide latitude of possibilities for source selection. It

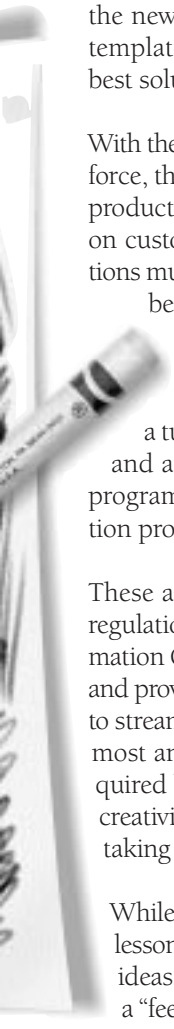
Source selection teams must be encouraged to "color outside the lines" using common sense and integrity. If it isn't illegal, give it a try!

Gardner is a Senior Program Manager, Advanced Programs. Management Team, Advanced Programs Directorate, Aeronautical Systems Center, Eglin AFB, Fla. He is a graduate of APMC 97-3, DSMC. Assisting him in preparing this article for publication were the Advanced Programs Management Team members.

really comes down to "What makes sense?" Over the years the abundance of rules and regulations governing the source selection process trained program managers to be somewhat unimaginative or even hidebound in their approach to source selection.

Because of the tremendous volume of work, the "template" method of source selection is still the easiest path to take — what has worked in the past will *certainly* work in the future. However, in the new acquisition environment this template idea will no longer yield the best solution.

With the cutting of the acquisition workforce, the implementation of integrated product teams, and renewed emphasis on customer satisfaction, source selections must be leaner, faster, and offer the best opportunity to get the maximum from the contractor for the best value. This requires a fundamental shift in paradigm, a turn away from business as usual, and an expansion of the role of the program manager in the source selection process.



These actions require no new laws or regulations; the Source Selection Information Guide[1] governs source selection and provides more than enough latitude to streamline source selections using almost any formula desired. What *is* required has always been in our grasp — creativity. Our job then, is just a case of taking advantage of it.

While it is impossible to cover all the lessons learned here, we present a few ideas to help program managers get a "feel" for the new way of doing business and, in turn, get the most from the source selection process. As with a source selection, this presentation of ideas begins with the writing of the Request for Proposal.

Writing the Request for Proposal

The tone a team sets in a source selection will determine the quality of the product received. When team members approach a source selection professionally and confidently, everyone involved — contractor and government — tends to perform at a higher level. The Request for Proposal (RFP) and the environment it is written around set the tone for the entire source selection process. Also part of the RFP environment are the demands the RFP makes on the contractors, how the program office handles and safeguards proposals, and the technical library and the pre-proposal conferences.

The SOW and Section L

A good place to start this discussion is with the writing of the statement of work (SOW). This can be summed up in one word: *Don't!* The traditional SOW explains how a product will be designed to the lowest detail. This places the defense contractor in the position of being solely a "gun for hire." It makes more sense to let contractors decide how *they* will do the job. Perhaps someone in their organizations has an idea never before seen. The best way to get that idea is to dispose of the SOW and replace it with a statement of objectives (SOO).

Although so much has been written about the SOO any further explanation is beginning to sound trite, true understanding requires a fundamental change in method. For example, instead of writing the objectives for "an airlifter that can fly 8,000 miles un-refueled, carry outsized and oversized cargo, and land on a soft field (specifications of soft to be provided in detail)," step back once and write the objective to "deliver outsize and oversize cargo to Konya Airfield, Turkey (a soft field) within 25 hours." Finally, give the offerors the budget breakdown by year and color.

That information, with two or three key requirements, will constitute the *entire SOO!* Don't be tempted to "hide" a SOW in section L or M (as has been done in some notable "streamlined" programs). However, provide instructions in Section L that clearly define what must be included in the SOW (e.g., performance, management, reliability, maintainability, producibility, logistics, safety, HAZMAT, etc.) so the contractor will know how to write it. This method is sure to generate spectacular and previously unimagined ideas.

One unexpected profit from writing the SOO this way is the shortened length of the RFP, since this one tactic may cut its size significantly. The RFP has to be tailored to the type of source selection and will differ considerably between program phases, but using a *true* one-page SOO will considerably decrease the workload. In turn, this shortens the time it takes to write the RFP and the time it takes the contractor to respond.

Part of that contractor response will be to write the SOW. Another hint is to have the contractor provide this SOW electronically for the cleanup that will need to be done. Other than that, don't provide any direction. Responses will more than likely include a high-quality SOW that covers the task.

Not providing direction means also not demanding the use of *any* specifications or standards. If contractors think any specifications or standards are necessary, they can include them in their proposals. If a proposal doesn't provide a specification/standard (commercial or government) to accomplish a critical task and the evaluation team believes it should, that proposal can either be clarified or discarded.

Section M

Color rating and risk assessment used for the evaluation must be specifically spelled out even if both contractor and government teams insist they understand these longstanding definitions. When actually faced with either writing or evaluating a proposal, most people carry preconceived baggage into the process of what constitutes a color or risk assessment, and ignore the definitions contained in regulations. This tendency is so strong that even when teams finally do understand the formal definitions, they sometimes still refuse to propose/evaluate correctly, thinking there is latitude to diverge from these definitions.

The correct meanings of the color ratings, the proposal risk, and the performance risk should be included in Section M of the RFP. While this will make it clear to the contractors, the definitions should also be briefed to the

evaluation team, with emphasis placed on the fact that the evaluators *must* use the Section M definitions and not their own. These steps should mitigate the problem, but constant vigilance is needed by both the team chairman and evaluators to actually solve it.

Responses to an RFP could provide a wide variety of options to the government, particularly with the streamlined process of using a SOO and asking for only a few key requirements, with the majority remaining in "trade space." Section M evaluation criteria, the areas to be evaluated, and the weighting of these areas must be consistent with this new way of doing business.

The "one hat fits all" mentality will not provide the government with the type of acquisition process it desires. For instance, past performance should be weighted according to the goals of the program. If the program is striving to push technological barriers and the evaluation team evaluates past performance, technical, and management categories, it would make sense that the past performance category probably should not constitute 33 percent of the rating.

Instead, the technical category will probably account for the most weight. In another situation where technology is not the driving factor, past performance probably shouldn't be just 33 percent, but could range as high as 50 percent or more (similar statements can be made about cost and management). Evaluation teams need to set up criteria and weightings according to what makes sense, not to a preordained rule.

Libraries

The source selection library is the backbone of the source selection. The job of recorder is one of the most important and requires an extremely organized, disciplined individual who can be assertive in the duties of safeguarding all source selection sensitive information.

A good recorder can also be instrumental in stopping problems with post-source selection protests. Because of the importance of this job, the recorder needs the full cooperation of the source selection team and support of the source selection team chairman. Choose the recorder well in advance of the beginning of the source selection and designate to the recorder responsibility for the entire source selection library; specifically, when bidders have access (technical or bidder's library) and after source selection begins (evaluator's library).

The recorder needs time to develop tracking mechanisms for positive control of library materials, to establish storage space, plan security checks, and complete a host of other details specific to the physical layout of the source selection area. Although using a central source selection building/area will ease the recorder workload in these areas, all of these procedures need to be in place *before* evaluations begin.

Technical library procedures must be in place well before the RFP is released, especially when classified material is included. This is true whether the library materials and proposals are in paper or electronic format.

Organizing a technical library requires preparation and planning:

- An automated inventory database to identify and track all technical data is very helpful.
- Once the recorder obtains documents for the technical library, each should carry its own distribution statement. Secondary distribution may be prohibited.
- Duplicating arrangements should be made in advance for over-sized drawings.
- Library inventory and visitation procedures should be clear and readily available.

All documents anticipated for inclusion in the technical library should be in place before release of the RFP, and the procedures for access to the library by the potential offerors should be established and published well in advance. The payoff for this up-front work comes with better communication with offerors and the degree of "with-it-ness" contractors feel the program office has. The result is a much better, faster, and more profitable source selection for contractors as well as the government.

The importance of the recorder responsibilities during a source selection are rarely appreciated until the evaluation starts. It is only then the team comprehends the demanding details of storing, distributing, and tracking the huge volume of source selection sensitive information. A firm understanding by all members of the team of the operation of the source selection library and procedures is very important.

Additionally, the library must be manned at all times during the evaluation period. This volume of effort and activity requires the responsibility to be shared with at least one additional (preferably two) persons. Evaluator schedules generally dictate library hours; therefore, extending access to data in the library beyond normal business hours is usually necessary.

Before source selection begins, identify documentation requiring control numbers. Control and maintain original documentation in the library, and control photocopies and electronic copies provided to the team as working papers/data.

Other Hints

Most Service source selection regulations permit the cost volume of a proposal to be available to the entire source selection team. However, debriefed offerors have stated that it gives them a "level of comfort" to know the technical and management evaluations occur without visibility into the cost.

Lessons learned reports indicate technical and management teams also prefer *not to* see the cost volume of a proposal until the final briefing to the Source Selection Authority. Many evaluators new to the source selection process wish they had access to the cost volume. Only in hindsight do they r

ealize it was best to conduct the evaluation without that information.

Hold the proposal length to just what is required to present contractor plans. Generally, asking contractors what they think that length should be is a good idea. Less than 100 pages is not an unreasonable number. Shorter proposals demand clarity and can even drive better solutions.

When ordering proposals, ensure you ask the contractor to deliver enough copies to allow one complete proposal to stay with contracting and enough copies for the evaluation team to efficiently do their job.

Building Effective Source Selection Teams

The evaluation team is the key to an efficient source selection. Well-thought-out teams result in well-thought-out and more effective selections and superior products to the warfighter. Getting the right number and type of people in place is the objective: Streamlining evaluation factors, training team members correctly, and knowing what resources to pull-in from outside and how best to use those resources is the approach to reach that objective.

Streamlining Evaluation Factors

Due to increasingly limited government manpower on evaluation teams, it may sometimes be prudent to limit the number of source selection factors to coincide with the number of government persons available as factor "captains." The rule for effective source selection teams is that smaller is better. Source selection factors must be carefully selected to balance the competing demands of *available personnel and sufficient resolution* (or discrimination) of proposals.

When writing the source selection factors, the team should simultaneously identify a candidate captain. This will help restrain the number of factors being written, provide early identification of personnel requirements, and furnish a preliminary source selection organization structure. The entire team should develop evaluation factors to ensure agreement and a minimum number of true discriminators.

Evaluation teams need to set up criteria and weightings according to what makes sense, not to a preordained rule.

Timely source selections have simple, unambiguous factors/criteria/standards that are *open yet precise* and address only those areas of the proposals that are essential to the success of the program. The best idea is to hold evaluation team meetings to review the acquisition documentation during the draft stage, with special emphasis on the SOO requirements. Use inputs from all specialty area personnel to narrow the factors down to only those that are program discriminators.

Training

That the evaluation team needs training prior to beginning a source selection is generally accepted, common knowledge; but the methods and amount of training differ from one source selection team to the next. One possible method to train the evaluation team is to organize a "test-run" evaluation of an artificial proposal for one of the actual factors (but not run on an actual proposal). This enables the team to study how the write-ups roll up from the evaluator level to the area chief level, and to set some "standards" as to what is expected from each level.

The training need not be extensive, but should cover at least one factor and all levels of evaluation, including individual evaluators, factor captains, and area chiefs to ensure the entire team begins the evaluation on the same foundation.

Using Outside Resources

One other personnel difficulty that might present itself during source selection is the use of outside help as factor captains. This can be especially troublesome if this evaluator travels from outside the immediate area for the evaluation.

Due to limited manpower or the need for specific expertise, persons outside the program office, and frequently from another base, are often assigned to a source selection team. Team members from off-base often attempt to continue performing their previous jobs, either by telephone or by returning to their offices periodically throughout the source selection period. This division of their time and attention is extremely disruptive of the source selection process since they are sometimes not available for unexpected questions/discussions concerning the source selection evaluations.

This is especially disturbing when an area/factor captain travels off-base to return to their office. The source selection evaluation team chairman must carefully explain to each individual *and* their supervisor that the assignment to a source selection team takes precedence over *all* other responsibilities, and that anything less than total dedication to the evaluation precludes assignment to the team. Don't accept anything less than a total commitment — and enforce the rules!

Another problem can occur when these "outside" people do not understand or fully embrace the goals and mission of

the organization conducting the source selection. Their different perspective can lead to time-wasting conflicts in interpretation and application of the source selection standards and, in turn, to inconsistencies between the evaluator write-ups and subfactor/factor summaries. The team chairman should interview prospective members to ensure they are suitable and not accept members who cannot embrace the vision of the source selection organization.

Two other categories of outside help, government and non-government expert advisors, should be considered for source selection. To make the most effective use of these tactics in both cases, the team should decide to use these resources long before the evaluation begins.

Government expert advisors can be called in to advise the Source Selection Authority. This type of help should always be considered since it can be a tremendous help in decision making, assist with informed or technically advanced opinions, and do so without the need to encumber these individuals for the entire length of the source selection.

The result is a better source selection and more buy-in from the stakeholders, especially when one of these expert advisors is the user. Since these experts are not technically part of the source selection team, however, regular team members shouldn't be allowed access to these evaluations until the Source Selection Authority makes a choice of contractors. The source selection evaluation board can see the expert evaluations, but the results should be kept confidential from the remainder of the team to avoid any appearance of influence.

Two factors contribute to the necessity of using non-government advisors in a source selection.

- First, the use of a SOO almost demands this. If a program is technically complicated, the wide variety of responses possible makes it improbable, if not impossible, that any government evaluation team possesses the organic expertise to cover all possible technical solutions.

- The second factor, downsizing of program offices, could make the use of non-government advisors nearly essential, especially for small program offices without the "clout" to pull in government personnel from elsewhere.

While there is no argument that when it comes to evaluation teams, smaller is better, these experts may be essential for providing timely and comprehensive evaluation recommendations to the government factor captains. Without them, government-only source selection teams may not be able to conduct proposal evaluations in a reasonable period of time.

If a team decides to use non-government advisors, they should be very cautious about conflict-of-interest problems and whether or not a waiver is required. If a waiver is needed, this process should be started early.

Other Hints for Shorter Source Selections

Some of the major causes of lengthy source selections are misunderstandings between what the government asks for in an RFP and what offerors believe they have been asked for. Two of the best methods for solving this problem are "preproposal conferences" and "offeror training."

Preproposal Conference. Schedule a preproposal conference or workshop with potential offerors one to two weeks after release of the RFP (depending on the amount of time the offerors have to prepare their proposals). This allows offerors as well as the government an opportunity to go over the RFP and clear up any questions.

Such conferences or workshops can be scheduled with all potential offerors at one time or in individual one-on-one sessions. However, limit their scope to the RFP only, not specific proposal details. Ultimately, these forums and the resultant conversations could generate amendments to the RFP and may even help eliminate discrepancies in the offerors' proposals that could prevent award without discussions.

Offeror Training. Just as the government reaps benefits from training the evaluation team on how to evaluate proposals, equally important is training the offeror to write proposals that are easier to evaluate. The government intent to award without discussion is becoming common, and if done correctly, can trim millions of dollars and thousands of manhours from source selection for contractors as well as the government.

Many things can hinder an award without discussion. If the program office intends to award this way, it benefits the government as well as offerors to provide all potential offerors with a list of insidious errors that will cause their proposals to be unawardable.

Small common mistakes, like failure to address minor technical and management requirements in a contractual portion of the proposal and apparent numerical errors in the cost volume, can bring a proposal evaluation to a sudden stop. The program office, however, can mitigate this problem by allocating time during Industry Day or a preproposal conference to alert potential offerors about these common mistakes, in effect, training the offerors.

Allowing the contractors freedom in responding to an RFP can pay great dividends. Contractors can propose concepts that the government never considered to solve previously unsolvable warfighter deficiencies. However, delineation between the advantages and disadvantages of different concepts can be lost after the government releases clarification and deficiency requests (CRs and DRs).

The opening of discussions allows bad proposals to become better, but generally does not reward or improve good proposals. Each contractor is initially given the same opportunity to respond to the RFP, and consideration should be

given to eliminating poor proposals from competition. The CR/DR process costs the government *and the contractor* time and money. Another facet of this argument is the question of how the government can hope a contractor will be successful with the requirement to build a complex piece of equipment if they fail to meet the very first requirement of a comprehensive and effective proposal.

All proposals have errors that need to be corrected but which do not fall within the scope of the source selection standards, such as errors categorized as failing to meet terms and conditions (company names in SOWs, improper footers, etc.). If CRs and DRs are to be sent out for these kinds of problems, consideration should be given to withholding technical CRs and DRs to avoid a leveling of proposals. These errors need to be corrected in a contractually acceptable method while avoiding any delay in the source selection process.

To do this, the program office should decide how errors of format or content not addressed by actual criteria are to be handled *before* proposal receipt. One acceptable method that allows administrative errors to be corrected without technical leveling is to accumulate the errors into an administrative contract modification after contract award.

The use of a subset of the evaluation team, for instance only the chairman and area chiefs, to review proposed CRs and DRs, can be extremely helpful to correctly categorize and minimize the number of valid requests. This small team has the potential to considerably decrease the number of CRs and DRs sent to offerors, with the eventual payoff of significantly reducing the length of source selection. However, the process and procedures for this review must be developed before source selection begins, not refined as CRs and DRs are generated.

Source selection can also be speeded up by allowing the offeror to submit plans such as the Hazardous Material Management Plan, Facility Plan, Security Plan, or Configuration and Data Management Plan two to four weeks prior to formal proposal submittal. This provides a means of spreading the workload, eliminates some of the schedule concurrency during critical evaluation periods, and shortens the overall source selection schedule. The offerors usually use a spin-off of existing management policies/ plans to generate these documents and often welcome an opportunity to get this effort out of the way early, allowing them more time to spend on the technical proposal.

A little common sense, some teamwork and creativity, and a good understanding of the regulations governing source selections can generate a tremendous profit.

Finally, the proper placement of requests for government property in a proposal can generate enormous dividends. Government-furnished property is usually displayed as part of the cost volume because it has a direct cost impact to the government.

In addition, other Section L instructions typically tell contractors they do not have to duplicate information within their proposals. These two things, coupled with the need for the technical evaluation team to scrub the property list, results in the various components of government-furnished property appearing in different parts of the proposal.

This creates considerable additional work for the source selection team to consolidate and sanitize cost information from the list that, in turn, lengthens the proposal evaluation. This problem is easily solved if Section L directs a complete list of requested government-furnished property (without cost information) be included in a single list in the technical volume.

No Source Selection "Cookbook"

This article surfaces a few good ideas to streamline source selections — together, these ideas provide only a good beginning. A little common sense, some teamwork and creativity, and a good understanding of the regulations governing source selections can generate a tremendous profit.

Source selection teams must be encouraged to "color outside the lines" using common sense and integrity. If it isn't illegal, give it a try! Work with the contractors to maintain an open dialogue throughout source selection. Use their tremendous resources and expert advice to point out insidious errors, mitigate misunderstanding, and hopefully help award without amendments and discussions.

Correctly done, a streamlined source selection is more challenging but much more rewarding, and can lead to shorter selection periods and the saving of significant time and money. This, in turn, will *always* give the warfighter the best product available for the best possible price!

REFERENCE

Air Force Federal Acquisition Regulation Supplement (AFFARS), Appendix BB, "Source Selection" (Headquarters, U.S. Air Force, Jan. 8, 1998).

AIR FORCE NEWS SERVICE

Global Positioning System Marks 20th Anniversary

PETERSON AIR FORCE BASE, Colo. (AFNS) – Twenty years ago, on Feb. 22, 1978, the first Navstar Global Positioning System satellite was launched from Vandenberg Air Force Base, Calif. It was the first of four GPS satellites to be launched that year.

By December 1978, this minimal constellation of military satellites was providing real-time, three-dimensional navigational information to limited Earth-bound users.

The GPS is operated by the Air Force Space Command's 2nd Space Operations Squadron at Falcon AFB, Colo. Today, the system has a minimum constellation of 24 operational satellites that blanket the Earth around the clock with precise, all-weather, navigational information.

Reaching far beyond military application, the GPS satellites today provide navigational information to commercial aircraft, ships at sea, hikers, rental car customers, and anyone with a GPS receiver.

With its real-time accuracy of positioning users to within a few feet, the GPS is credited with revolutionizing areas as broad as land surveying to search and rescue. In fact, it is often referred to as the system that has taken the "search" out of search and rescue, as demonstrated in 1995 during the rescue of Capt. Scott O'Grady in Bosnia, according to an AFSPC official.

During the Persian Gulf campaign of 1991, the GPS played a critical part in synchronizing military action during a lightening-blitz, 100-hour war that was fought on an endless, featureless, ocean of sand, added the command officials.

So popular were the GPS receivers that troops, who at this time were using civilian-grade receivers, were writing home to family members requesting them to purchase civilian receivers and send them "ASAP" to the gulf.

Released: Feb. 24, 1998

GPS use in the civilian world goes way beyond vehicle navigation as well. By using stationary receivers, geologists are able to determine minute movements of the Earth's crust in earthquake zones, and archeologists are identifying hard-to-find sites in jungle foliage. GPS receivers on bulldozers are helping farmers grade their land to within a few inches of where they want it. Giant ocean vessels are now steering their cargo through previously [unnavigable] routes.

This incredible satellite navigation system can trace its legacy back to the military's oldest space system, TRANSIT, say AFSPC officials. TRANSIT is a U.S. Navy navigational satellite used to accurately locate ballistic missile submarines and surface vessels. The first TRANSIT satellite was launched in 1960, and the system of four satellites became operational in 1965.

TRANSIT was slow, intermittent, and subject to errors with even the slightest motion of the observer, according to George W. Bradley III, Air Force Space Command chief historian.

"In short, TRANSIT, while a big step forward in radio position location, was impractical for use on aircraft or missiles, he said."

The space system [that] ultimately became GPS, traces back to 1963 when the Air Force began work with the Aerospace Corporation in El Segundo, Calif., to develop its own multisatellite navigational system. Following many years of design modifications and tests, the first satellite was launched Feb. 22, 1978.

Today, GPS satellites travel in 12-hour, circular orbits 11,000 nautical miles above Earth. They occupy six orbital planes, inclined 55 degrees, with four operational satellites in each plane.

The spacecraft are positioned so that an average of six are observable nearly 100 percent of the time from any point on Earth, and each is equipped with an atomic clock, accurate to within 10-billionth of a second of the standard set by the U.S. Naval Observatory. Additional GPS satellites are being readied for use when aging satellites require replacement.

By the year 2000, approximately 17,000 U.S. military aircraft are expected to be equipped with GPS receivers, and more than 100,000 portable receivers will be in use by U.S. ground forces and on military vehicles.

Meanwhile, the National Academy of Sciences reports that by 2005, the commercial market for GPS services will be close to $30 billion, marking the system as one of the most important American investments in space.

Editor's Note: This news release, courtesy of the Air Force Space Command News Service, is in the public domain and may be accessed at **http://www.af.mil/new**s on the World Wide Web.

DSMC's Managerial Development Curriculum

Learning about Learning
Thinking About Thinking
Building Capacity to Improve

DR. MARY-JO HALL

By now, most of you reading this article have heard or read Secretary of Defense William S. Cohen's vision for the Acquisition Workforce of the future:

My vision of the acquisition workforce in 10 years is for a smaller workforce, in fewer acquisition organizations, that is engaged only in the inherently governmental functions of determining requirements; establishing and executing budgets; establishing contractual arrangements that can be accessed by users to meet their needs; overseeing those contracts to make sure that the work gets done within the performance, cost, and schedule needs of the government; and ensuring the maintenance of the public trust. This workforce will be organized to manage suppliers rather than supplies, and will focus on the total cost of ownership to provide and support high-quality goods and services to our warfighting men and women.

Secretary of Defense
William S. Cohen

Our Defense Systems Management College (DSMC) Managerial Development (MD) curriculum, which is one of the core subject areas taught in our Advanced Program Management Course (APMC), is specifically structured to develop acquisition managers who *can* and *do* think for themselves—managers who

Navy Cmdr. Gibson Kerr; Laval Mallard, U.S. Navy civilian; Chris Grassano, U.S. Army civilian; Navy Cmdr. Walter Pullar III, U.S. Navy civilian. (APMC 98-1, Managerial Development)

Army Lt. Col. Thomas Stautz; David Goldberg, U.S. Navy civilian. (APMC 98-1, Managerial Development)

Air Force Maj. Ron Mikrut; Susan Przybilla, U.S. Navy civilian. (APMC 98-1, Managerial Development)

Hall is a professor in the Managerial Development Department, Faculty Division, DSMC. She holds a Ph.D. from George Mason University and serves on the 1998 Board of Examiners for the Malcolm Baldrige National Quality Award.

"Leadership and learning are indispensable to each other."

—President John F. Kennedy

Air Force Maj. Kelly Calabio; Chris Grassano, U.S. Army civilian. (APMC 98-1, Managerial Development)

Bradley Thomason, U.S. Army civilian; Samuel Densler, industry student. (APMC 98-1, Managerial Development)

Army Lt. Col. Susan Neumann (APMC 98-1, Managerial Development).

will be fully capable of carrying out Cohen's vision for the Acquisition Workforce of the future.

Individual Skills, Team Skills, Organizational Learning

Acquisition Reform is about change and managing change. Toward that end, the MD curriculum emphasizes learning about, and developing increased skills for, leading Integrated Product Teams – with a focus on managing change.

Highly experiential, the MD methodology also includes readings, lectures, and discussions, and emphasizes individual learning through concepts such as the Myers Briggs Type Inventory (MBTI) and the Profilor 360 Degree Feedback.

We also stress team skills, such as the dynamics of interpersonal relationship building; consensus; synergy; and promoting group problem solving/organizational learning in terms of values, vision, conflict management, change management, empowerment, and coaching. This approach allows work groups, and the section as a whole, to coalesce into a performing team in a short amount of time.

MD Project

Jim Clemmer, author of *Pathways to Performance*,[1] repeatedly implies that "You can't build a team or organization different from you." Taking that admonition a step further, a major portion of individual focus is each student's MD Project, which is designed to enable students to build their capacity in a specific interpersonal or personal skill. To assess student progress and demonstrate student competency in MD, we use the MD Project, along with a multiple choice test.

The MD Project encourages participants to integrate theoretical learning with practical application in the classroom, on the job, and in their personal lives. This blend of theory and application allows students the opportunity to practice a new behavior or skill. Moreover, the project environment also provides an opportunity to work on topics that have personal relevancy and meaning

Based on my own philosophy of learning and my experience, I customized the generic MD Project to include generic goals for learning. These goals are prominently displayed on a slide I use to open every class: *Learning about Learning; Thinking about Thinking; Building Capacity to Improve.*

Thinking about thinking is a very different concept than merely *thinking.* Rolf Smith, in *The 7 Levels of Change*,[2] uses a Mindshift model to describe Innovation. Smith states that to get different (atypical) results, we must do things (approach solutions) differently; to do things differently, we must think differently (atypically); to think differently, we must think about our thinking (consider changing our approach to solutions).

Many styles of thinking are necessary to solve problems. Critical analysis, synthesis, and creativity are all parts of the thinking paradigm. The latest research on brain functioning provides new insight into the ways we think.

Most of us spend little time thinking about *how* we think or solve problems. One of the questions I ask APMC students is, "How do you solve problems?" I ask this question because although learning and thinking are individual processes, they play a heavy role in team functioning and success.

One of the guidelines for high-performance work teams is having a standard process for solving problems and encouraging the use of tools to gather objective data. Building a greater capacity to learn and think, in effect, increases one's own, personal toolkit. This then, is the practical subject matter for each lesson.

Understanding the importance of capacity building means accepting that you know your present capacity through a baseline assessment, and acting on that knowledge by setting personal target goals to reach a higher level of competency in a given area.

Besides using this philosophy as a theme, I find thinking in terms of "Purpose, Process, and Outcome" an effective method.

A major portion of individual focus is each student's MD Project, which is designed to enable students to build their capacity in a specific interpersonal or personal skill.

- **Purpose** includes the reason and aim for doing whatever you are doing: this means knowing *why* the topic is included in the curriculum, and the goals for its use.

- **Process** is *how* we will do whatever it is that we do: *How* will we use a vision state? *How* will we develop a team? *How* will I as a leader empower other team members?

- **Outcome** is the expected results. It answers the question, "So what?" and elaborates on "*What* is it that I expect to do as a result of this experience?"

I provide this background because it is within this context that students develop and execute their individual MD project. Because my philosophy of learning is heavily focused on performance results, I make every effort to link other APMC activities to daily work. I do this by continually emphasizing *how* the students will *do*, *think*, or *act.*

Joy of Learning by Discovery

One of the many benefits of working with APMC students is participating in their learning – hearing them say "Aha!" as they discover answers to their questions.

The MD project is a source of tremendous joy to me. (Sometimes when reviewing projects, I frequently shout with laughter at some of the clever statements and comments.) Because of the time the MD Projects cost students as well as facilitators, my department wrestles with including the project. Generally, it takes a minimum of 40 hours to review 31 projects and to conduct follow-on interviews.

Further increasing the students' and my own investment in time, I impose several requirements:

Although a "term paper" is not required, I do require a written project. The purpose for writing is twofold: I can provide students more value in terms of feedback if I have a written document on which to comment; and I can also think through the project with the student. (The latter purpose, admittedly, is a statement about my own personal learning style!) Writing also adds another dimension to the learning process by, in effect, enhancing retention. Additionally, the students create their own "how to" reference for the future.

I also require students to use a decision-making tool in their projects. Examples of using a decision-making tool in projects include using a Lotus chart to capture ideas; and using a Fishbone chart and the Five Why's to perform Root Cause Analysis. DSMC's current APMC (98-1) students also used Radar Charts (with encouragement from a classmate who had skill in using them) and Capacity Matrices more than previous classes.

Choosing a Topic

Because of the emphasis on personal capacity building, the MD Department waits until after students receive their Profilor 360 Degree Feedback (usually week four) before asking students to

make a decision on a specific topic for their MD Project.

Many students use the information from the Profilor and the MBTI to develop a major Learning Plan. Others take one topic that was listed on the Profilor as an "Area for Improvement" and assess present capacity, do research using the Learning Resource Center (LRC), and then practice some of the ideas.

An example of this is the skill of "listening." My spouse tells me that I am not a good listener. The Profilor confirms this trait. Students commonly start their projects with something along these lines. They choose a particular subject [listening] because they recognize [as I did] that their own listening skills need improvement. At DSMC, they have the opportunity to learn about listening [Learning Resource Center and Library] and to practice the skill of listening with a work group.

As a learning facilitator, I encourage those working on similar topics to share resources, ideas, and methods. This worked extremely well during APMC-98-1. Examples include two topics: assessing capacity for the new Senior Executive Service (SES) Executive Core Qualifications (ECQ) published by the Office of Personnel Management (OPM); and writing a Family Vision and Mission Statement.

SES ECQ Project

Seven or eight students in the Senior Section expressed interest in the ECQs. These students formed a research team to gather pertinent information. To begin, they gathered data from OPM and searched the Internet. The SES ECQs were then put into Capacity Matrix format. Collectively, the students sponsored a Brown Bag featuring a speaker from OPM.

Family Vision and Values Project

With the Family Vision and Values project, the students informally shared "how to" methodologies and resources. A highlight of this project was one student's discovery of a new tape on a subject by Stephen Covey.[3] As a result, the Learning Resource Center ordered copies for student use.

Transition Projects

Another project with notable results is the Transition Plan. Several types of transitions have been used as MD Projects. One is the transition from a military career to a civilian career; another is transitioning into a Command billet.

Students working on the Command Transition generally focus on learning about the new organization, assessing their capacity, and developing a Command Philosophy statement, complete with an outline of an implementation plan. The focus is on learning as much as possible about the present state of the organization, and then determining what legacy the students can leave. The action includes planning how to get to the desired end-state.

This plan is so robust and dynamic that students make follow-up visits to my office to continue working the plan during the rest of their stay at DSMC. I am most fortunate to have one student (97-2) who continues to share with me via E-mail, experiences and anecdotes in implementing the Transition Plan.

Still another is transitioning roles. Students working on the Family Visions and Values project combine information from the Profilor in terms of development, but they also use the Values, Vision, and Goals from other parts of the curriculum.

Most students involve their spouses and use formal exercises or decision tools to perform self-assessments and set goals.

A Transition Plan with a different twist was completed in APMC 98-1. The student personally wanted to transition from being a leader in a unit to being a superior "leader of leaders" for the entire organization. His project involved extensive baseline assessment of personal strengths; reading and research on leadership; and reviewing the lives of famous leaders by visiting historic venues such as Mount Vernon, Monticello, Manassas, and Kill Devil Hill.

Flexibility

If the MD projects are to be meaningful to the students, flexibility is an absolute *must* – flexibility in topic, in process, and in product. An example of flexibility in choosing the topic is the use of technical areas of study.

The purpose of the MD projects is to enhance interpersonal skills, not technical skills. However, once in a while, students really need to learn more about a technical area as part of a change process in their office. By going back to the *Learning about Learning; Thinking about Thinking; Building Capacity for Improvement* philosophy, flexibility can allow coverage of technical topics.

As an example, one student was in the beginning stages of a change process involving Activity Based Costing (ABC) and wanted to learn about ABC. During a discussion, we recognized the reason he needed to know about ABC was to develop strategies to implement ABC in his command. Working through this aspect, his project became "How to Implement ABC – the People Side of the Equation." He realized that managing the change process was as important as the technical aspects of ABC. He incorporated the Force Field Analysis decision tool into his project to analyze drivers and resisters. From this vantage point, he saw that internal communication was a key answer.

Another aspect of flexibility is the format of the product. Many of the projects are actual documents or tools.

An APMC 97-3 student wanted to learn more about leadership. Her project included reading and applying principles from Warren Blank's, *The 9 Natural Laws of Leadership*.[4] The process she used involved Mindmapping®.[5] She also used a Lotus Chart and then compared the two tools.

Next, she prepared an executive summary of Blank's ideas and how she would use them at her duty station. To complete her project, she made suggestions on using the Blank concepts and Mindmapping® in the MD curriculum.

So What?

While some students do the minimum requirements for the MD Project, most students impress me with the scope and detail of their projects. Many put time, effort, thinking, learning, application, and *heart* into the project.

Several have dropped by the office and said, "Here is my project. I just had to stop," because they became so involved, it was taking all of their time. Others write that they started the project as a "to do" requirement from the school and me; however, they finished it learning about themselves and gathering new ideas for building their capacity.

Some will say "I have been pleasantly surprised to realize that these techniques are, in fact, effective." Others discuss the difficulty with personal reflection...and yet praise how much they learned from the experience. Still others relate personal excitement and enthusiasm from the reaction they get when they take their Learning Plan, Capacity Matrix, or Portfolio on an interview.

The MD Projects allow me to serve the students as a coach and consultant. I provide references, contacts, ideas, and resources, thus adding more value to the learning experience. From the projects, I learn first-hand the realities of individual learning, teaming, and organizational challenges. I get great ideas from the students and build those into the curriculum. I get suggestions for books that I can pass to others.

While some students do the minimum requirements for the MD Project, most students impress me with the scope and detail of their projects. Many put time, effort, thinking, learning, application, and *heart* into the project.

Some former students put their ideas together and submit articles to *Program Manager* magazine. Other students present their efforts in the DMSC Elective program (*Think 101* started out as a student project).[6]

With every class, I am impressed with the talent and dedication students display. But most of all I am thrilled to see their joy in learning and gratified to be a part of their learning experience.

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CLINTON NOMINATES DSMC FRIEND AND LONG-TIME SUPPORTER, "NORM" AUGUSTINE

Norman R. "Norm" Augustine, a long-time DSMC friend, supporter, and guest lecturer, is poised to add still another title to his impressive résumé. On March 3, 1998, President Clinton announced his intent to appoint Augustine as Principal Officer and Member of the Board of Governors of the American National Red Cross.

The Board of Governors of the American National Red Cross is the governing body of the Red Cross. The American National Red Cross is a humanitarian organization, led by volunteers, that provides relief to victims of disaster and helps the American public to prevent, prepare for, and respond to emergencies.

Augustine is currently Chairman of the Lockheed Martin Corporation in Bethesda, Maryland. A distinguished author, lecturer, and former Under Secretary of the Army, he is also a professor at Princeton University, a Trustee of Johns Hopkins University, a former President of the Boy Scouts of America, and a former National Chairman of the U.S. Savings Bond Campaign.

Augustine is co-author of *The Defense Revolution* and is best known throughout DSMC for his *Augustine's Laws*, printed in four languages, and his popular lecture, "A Day in the Life of a CEO."

Defense Department Seeks Nominations for Leadership and Management Program

WASHINGTON (Army News Service, April 10, 1998) – The Office, Secretary of Defense, is once again seeking nominations for the Defense Leadership and Management Program. DLAMP is a DoD-wide civilian leader development program established in April 1997 to ensure the Department has a cadre of future civilian leaders with a Defense-wide focus.

The DLAMP is a highly competitive training, education, and development program, open this year to civilians at grades GS-13 through GS-15 and equivalent. The Class of 1998 will have 350 participants; the Army's quota is 127.

The program consists of a rotational assignment of at least 12 months; a 3- or 10-month course of professional military education (Senior Service College); a minimum of 10 graduate-level courses in leadership and management subjects relevant to DoD; and component and occupation-specific developmental courses that complement DLAMP. Participants meet these requirements on an incremental basis over a period of six years. Previous education and experience may fulfill some of the DLAMP requirements.

Upon completion of the program, participants should be highly competitive for senior-level leadership jobs, as they become vacant.

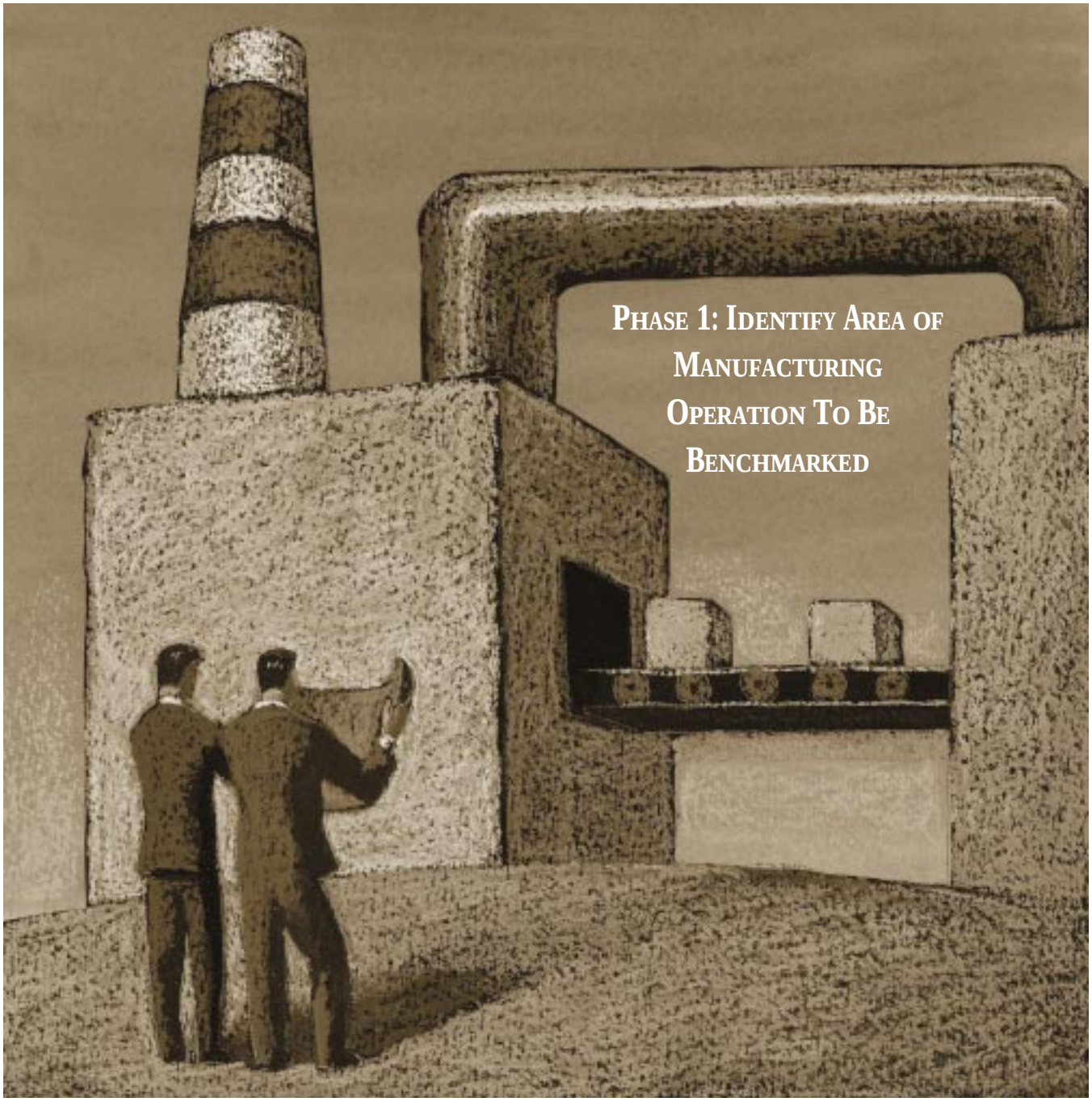
Nominations must be submitted through command channels to HQDA not later than May 1. Additional information on DLAMP, a copy of the announcement for the Class of 1998, and application forms can be found on the Army's Civilian Personnel Home Page at **http://cpol.army.mil**, under "Training & Career Development," *FY98 Catalog of Army Civilian Training, Education, and Professional Development Opportunities*. Interested employees should contact their activity training coordinator for local procedures and deadlines.

Editor's Note: This information is in the public domain and may be viewed at **http://www.dtic.mil/armylink/news** on the ArmyLINK Home Page.

Benchmarking Defense Manufacturing

A Means to Rapidly Identify Improvements to an Organization's Internal Processes

MRINAL K. MUKHERJEE, P.E.



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In today's commercial markets, industries are increasingly using a management technique called benchmarking to improve critical operations and consequently their competitive edge. Over 70 percent of Fortune 500 companies, including major corporations like AT&T, Ford Motors, Eastman Kodak, IBM, Texas Instruments, and Xerox, use benchmarking on a regular basis.

Benchmarking involves comparing and analyzing the performance metrics of your organization against the known superior processes, products, and services of companies that are in and out of your competitive base. The objective of this management technique is to rapidly identify improvements you can make to your organization's internal processes. When used in conjunction with a business strategy and a process reengineering or improvement program, benchmarking can optimize your efforts to improve your operations.

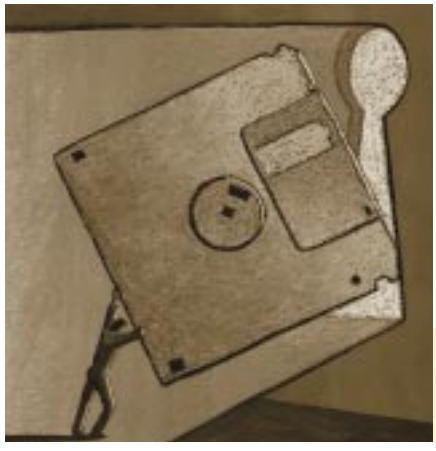
Why Benchmarking?

With the decline of defense procurements and diminishing manufacturing sources, the degree of competition in defense acquisition likely will decline. Benchmarking can help to improve Defense industry performance, thereby maintaining competition in the declining market.

Benchmarking Approaches

Benchmarking involves three main approaches:

- Internal Benchmarking
- Competitive Benchmarking
- Noncompetitive Benchmarking



Phase 2: Determine Key Performance Measures

With the decline of defense procurements and diminishing manufacturing sources, the degree of competition in defense acquisition likely will decline. Benchmarking can help to improve Defense industry performance, thereby maintaining competition in the declining market.

Phase 3: Identify Benchmarking Parners

Internal benchmarking involves comparing the business practices and performance measures of different departments or divisions within the same company or corporation. Making such a comparison can help identify the best practices within the corporation, and, once identified, the best practices can be implemented throughout the rest of the corporation, improving internal performance baselines.

The major advantage of internal benchmarking is that it is easy to perform. The performance data associated with the superior processes are internally available; thus, collecting the data and implementing process improvements should cost considerably less than collecting comparable data from an outside source, such as another corporation.

Of course, internal benchmarking yields data only about the best processes in the same company, which are not necessarily the best processes in the entire industry. Therefore, once the internal benchmarking is completed, benchmarking externally, either competitively or noncompetitively, is the wisest option.

Competitive benchmarking involves comparing your performance measures with the performance measures of the best-in-class companies engaged in manufacturing similar products or supplying services that are similar to yours. The major advantage of competitive benchmarking is that you can directly compare and clearly identify ways of improving your process. The major hurdle is that other companies are often reluctant to

share their performance measurement data with you, a competitor.

Noncompetitive benchmarking involves comparing performance measures with the best-in-class companies that use similar processes but are not necessarily involved in producing the same kind of product that you do. Because such companies are not competitors, they are more likely to share data. However, because their product lines and processes may not be identical to yours, you will have to normalize their performance data before you can compare it to yours.

Six Phases of Benchmarking Process

Benchmarking can be applied to any business operation. Benchmarking a manufacturing operation requires six major phases:

Phase 1. Any manufacturing operation has three major areas of focus: cost, quality, and cycle time. Which area should be benchmarked is a management decision. Management usually chooses the area that offers the greatest potential for improvement.

Phase 2. The next phase involves developing key performance measures for the area or areas of focus. Figure 1 depicts examples of performance measures for the three areas of manufacturing operation.

Phase 3. The choice of a benchmarking partner depends on the benchmarking approach you use. In internal benchmarking, the divisions within your company or corporation are the likely partners. In competitive benchmarking, the partner is a direct competitor. Not surprisingly, however, trying to convince a direct competitor to participate as a benchmarking partner is difficult. If the direct competitor is an overseas company, you should evaluate your return on investment for conducting a similar benchmarking study.

Phase 5: Determine Performance Gaps & Determaine Root Cause

For noncompetitive benchmarking, consider best-in-class companies using similar manufacturing processes, not necessarily similar product lines. Convincing such companies to become benchmarking partners generally is not difficult because they are not in direct competition with your organization. Figure 2 presents some examples of manufacturing-related, best-in-class companies.

Phase 4. Once you have a benchmarking partner, start collecting performance data. Either send a questionnaire to the other company or visit the site. Sending a questionnaire is less expensive, but the reliability of the data may be questionable. Visiting a site is more expensive, but the data may be more reliable because you can verify and validate it.

Phase 5. Based on the performance measure data, generate metrics for the participating benchmarking companies. These metrics provide information on the strengths and weaknesses of each company and identify gaps in the performance measures between the benchmarking companies.

Phase 6. Next, analyze the root causes of the gaps. Such analysis will require evaluating the superior company's manufacturing management policy and process, design and manufacturing tools, quality assurance practices, and approaches to reducing cycle times. Use the results of the analysis to formulate a plan for changing your own processes. Base the plan on cost benefit analysis, and the schedule for implementation will follow.

FIGURE 1. Example — Performance Measures: Three Main Areas of Manufacturing Operation

Manufacturing Cost

Direct Material
- Unit Cost
- Yield/Defect Rate

Direct Labor
- Labor Hours by Function
- Unit Productivity
- Management to Direct Labor Ratio

Indirect Costs
- Indirect Material
- Unit Cost
- Indirect Labor
- Head Count

Management to Indirect Labor Ratio

Quality

Manufacturing Yield
Amount of Scrap/Rework
Mean Time Between Failures
Quality Assurance Methodology
(e.g., Statistical Process Control)

Cycle Time

Product Development Times
Procurement Lead Times
Manufacturing Lead Times

Phase 4: Measure Performances & Develop Metrics

Potential Defense Applications

Benchmarking could be useful with most Defense weapon systems — aircraft, helicopters, satellites, tracked vehicles, ships, or missiles — and with our Depot maintenance services and manufacturing.

Aircraft, helicopter, and satellite systems have Defense as well as commercial manufacturing lines. Initial performance improvement can be achieved by internal benchmarking, comparing performances directly with the commercial lines. Further improvements in the performance can be achieved by external benchmarking, comparing performances with best-in-class companies.

For benchmarking tracked vehicles, shipbuilding, and missiles, no domestic commercial producers of similar products exist. However, many aspects of commercial manufacturing management processes are comparable to the processes used to produce tracked vehicles, ships, and missiles.

One option is to benchmark noncompetitively with domestic commercial manufacturers that have subsystems similar to the subsystems of tracked vehicles, shipbuilding, and missiles. Another option is to benchmark competitively with those foreign manufacturers of similar hardware who are willing to participate.

As for government depot maintenance services and manufacturing, benchmark internally. The performance measures can be directly compared to those of the private-sector maintenance services and manufacturing operation.

Two approaches to initiating and performing benchmarking in Defense manufacturing are possible: Defense manufacturers, themselves, can take the initiative by benchmarking with their in-house resources; and independent consultants can do benchmarking analyses.

The first option is more desirable because the manufacturers know more about their manufacturing management processes and their performance measures; they are aware of their strengths and weaknesses. Also, benchmarking with in-house resources costs less and takes less time.

The second option, however, offers one advantage: an outsider looks at the company and may offer innovative ideas for improvements.

Final Note

Benchmarking helps users derive the benefits of competition in a noncompetitive market. Moreover, it helps defense industries and the Department of Defense establish a baseline of their performance measures. It also identifies areas for potential improvement and assists in developing a plan for achieving improvements.

Benchmarking should not be perceived as a one-time data gathering exercise; but rather as an ongoing management technique for improving products and services. The emphasis should not be on the performance data, but on the underlying process that produces the data.

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FIGURE 2. Example — Manufacturing-Related, Best-in-Class Companies

Concurrent Engineering	**Manufacturing Management**
Boeing Co., Seattle, Wash.	Corning Inc., Corning, N.Y.
3M Corporation St. Paul, Minn.	Hewlett Packard Co., Palo Alto, Calif.
Manufacturing	**Flexible Manufacturing**
Hewlett-Packard Co. Palo Alto, Calif.	Allen Bradley Co., Milwaukee, Wis.
Texas Instruments Inc., Dallas, Texas	Baldor Electric Co., Fort Smith, Alaska
Design for Manufacturing	**Quality Management**
Digital Equipment Corp., Maynard, Mass.	Texas Instruments Inc., Dallas, Texas
Motorola, Inc., Schaumburg, Ill.	Digital Equipment Corp., Maynard, Mass.

Phase 6: Develop Improvement Plan & Implement Appropriate Practices

Shaping an NMD Acquisition Strategy

Do We Have It Right?

CAPT. MARK FALKEY, U.S. NAVY • PETER STARNELL

So, you're feeling pretty good about yourself. You've just finished fielding the next generation, hypertechnology, space superiority fighter below cost and well ahead of schedule. The user loves you, and the Office of the Secretary of Defense (OSD) can't say enough about your accomplishments.

You're also an Acquisition Category Level III (ACAT III) qualified program manager (PM) with a Master's in Aerospace Engineering and a Ph.D. in Systems Management, and your record boasts hands-on operational experience, as well as 20 years of coming up through the program office ranks.

Okay hot shot, here is your next assignment: You have just been named the PM of the National Missile Defense (NMD) Program, which the Under Secretary of Defense for Acquisition and Technology (USD[A&T]) recently designated an ACAT ID program. Your mission — characterized as a "3+3" strategy — is threefold:

- Complete development of an initial system in three years and be prepared to begin deployment.
- If told to do so, begin and complete deployment of the initial system in three years.
- If told not to deploy, maintain the option to deploy while continuing the evolutionary development of system capabilities.

The initial conditions are complex and extremely diverse:

THE PAYLOAD LAUNCH VEHICLE (PLV) FOR THE BALLISTIC MISSILE DEFENSE ORGANIZATION'S NATIONAL MISSILE DEFENSE (NMD) PROGRAM INTEGRATED FLIGHT TEST (IFT) -1 IS PICTURED HERE IN THE LAUNCHER AT MECK ISLAND, KWAJALEIN MISSILE RANGE. THE PLV CONSISTS OF MINUTEMAN II SECOND AND THIRD STAGES AND IS USED TO LAUNCH NMD EXOATMOSPERIC KILL VEHICLE (EKV) PAYLOADS PENDING DEVELOPMENT OF A DEDICATED BOOSTER BY THE LEAD SYSTEMS INTERGRATOR CONTRACTOR. THE PAYLOAD SHROUD CONTAINS THE SENSOR PAYLOAD PACKAGE.

Falkey is the Director for Program Management and Control within the NMD Joint Program Office located in Crystal City, Arlington, Va. A veteran of Vietnam, Grenada, and the Gulf War, he was the first Program Manager of the Joint Simulation System in Orlando, Fla.

Starnell escaped from Prague, Czechoslovakia, in 1948, spent 20 years in systems acquisition with the U.S. Air Force, and has 10 years as Manager of Acquisition Policy with TASC, Inc.

- The threat your system is to counter is elusive. It spans a spectrum from simple to complex; it may emerge from any one of several adversaries; and, there is not consensus regarding when it is expected to emerge.

- The U.S. Space Command is responsible for establishing system requirements, but each Service could be a user.

- The system consists of elements that are systems unto themselves and which, to date, have been technology efforts contracted for and executed by the Army, Air Force, and the Ballistic Missile Defense Organization (BMDO).

- The Army, Air Force, and BMDO have strong opinions as to the program's technical content and how it should be managed.

- Your "Program Office" grew from a Directorate within the BMDO. You are approximately 40 percent understaffed.

- You are moving headlong into the Quadrennial Defense Review (QDR) process and the Defense Acquisition Board (DAB) with a program that is significantly underfunded.

- While there is no set deployment date and your development efforts must be Anti Ballistic Missile Treaty-compliant, strong Congressional factions continue to push for deployment of an initial capability which may not be Treaty-compliant.

- Finally, current USD(A&T) direction reiterates support of the "3+3" strategy and requires the immediate establishment of a Joint Program Office with you as the PM reporting directly to the Director, BMDO. And, oh by the way, you should be ready for a DAB-level review of your acquisition strategy and proposed program baseline by mid August 1997 — which leaves you about 45 days before you have to initiate the Integrated Product Team (IPT) process in preparation for the review.

Any questions?

Yes, There's a Plan

While obviously tongue-in-cheek, this scenario is what faced Army Brig. Gen. Joseph M. Cosumano, Jr., on April 1, 1997, when he assumed program manager responsibilities for the National Missile Defense (NMD) Joint Program Office.

Q

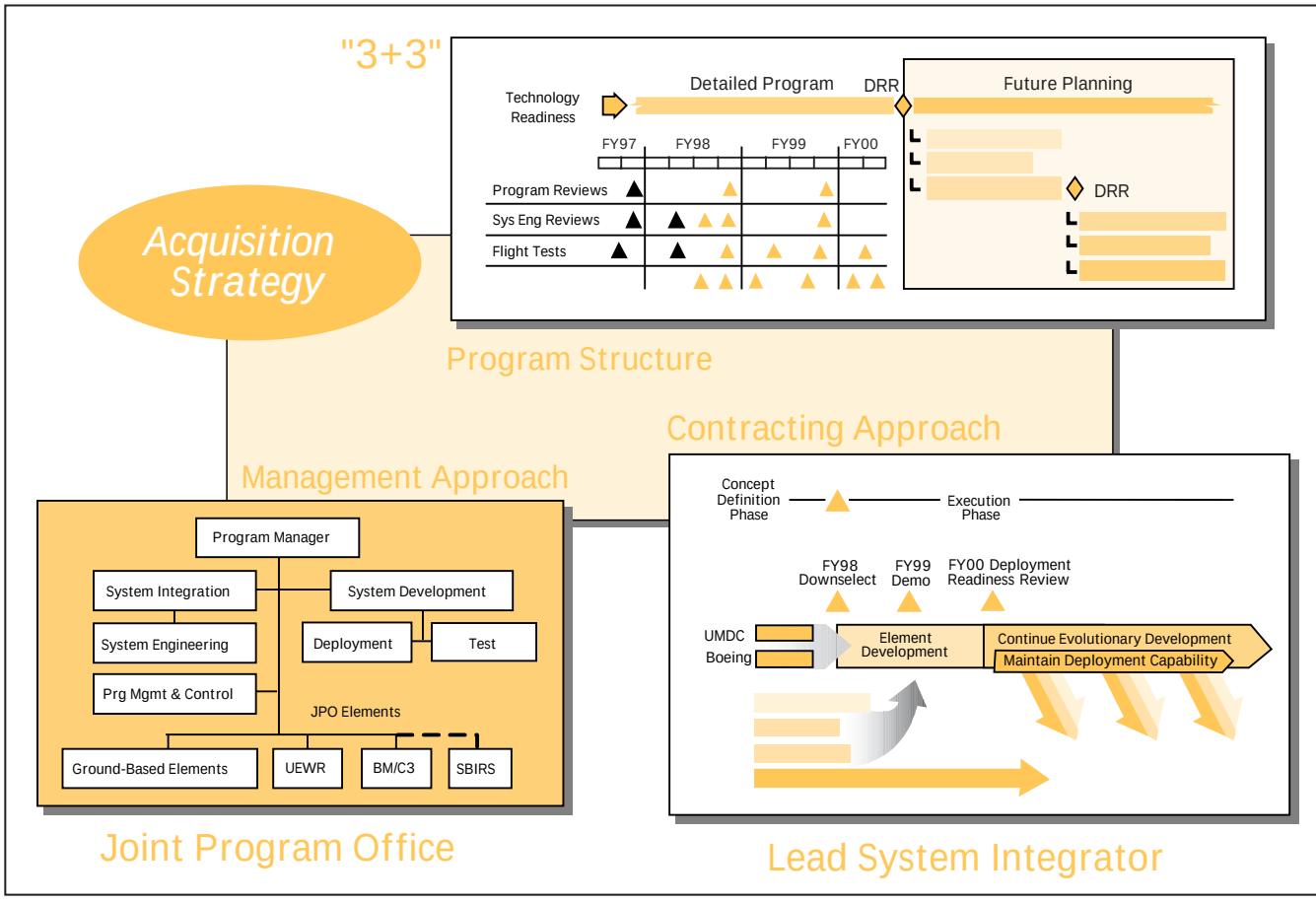
What did he manage to come up with in 45 days to kick off the Department's new consensus building IPT process?

A

A unique strategy to fit a very unique set of program requirements.

The NMD acquisition strategy depicted in Figure 1 consists of three principal

FIGURE 1. NMD Acquisition Strategy



elements, each of which is designed to address specific concerns of the program.

Program Structure

The first element, Program Structure, addresses the concern of how to adapt the DoD acquisition life-cycle model, with multiple phases and milestones that usually yield cycle times of 12 to 16 years, to a program that must achieve a six-year cycle time. The resultant structure shown in Figure 2 is non-recognizable in terms of the DoD milestones and phases, but satisfies program needs while parceling the program into logical increments separated by key decision points necessary for effective OSD oversight.

The program is structured in two phases. The Initial Development Phase has been planned in detail. Shown in Figure 2 is the first layer of major events. Supporting this are several more layers of master integrated schedules and critical path analyses that indicate the schedule is executable, albeit high-risk.

The plan calls for annual program reviews leading to the first Deployment Readiness Review (DRR) in FY00 at which the USD(A&T) will decide whether or not to deploy the initial capability system or to continue evolutionary development. His decision will be influenced by several factors: an assessment of the threat; the Administration's position regarding deployment and the ABM Treaty; Congressional willingness to allow deviations from statutory requirements; and the existence of a viable deployment option. Viability will be assessed based on specific deployment readiness criteria currently being developed by the program office.

> As one could have predicted, when the PM initiated the IPT process to obtain buy-in and consensus on the proposed strategy, he encountered resistance.

The follow-on Continued Development Phase is notional at the present time. It reflects a vision of the way the program will be executed, but the details are much dependent on the results of ongoing contractor trade-off studies and the Defense Acquisition Executive's (DAE) decision at the FY00 DRR.

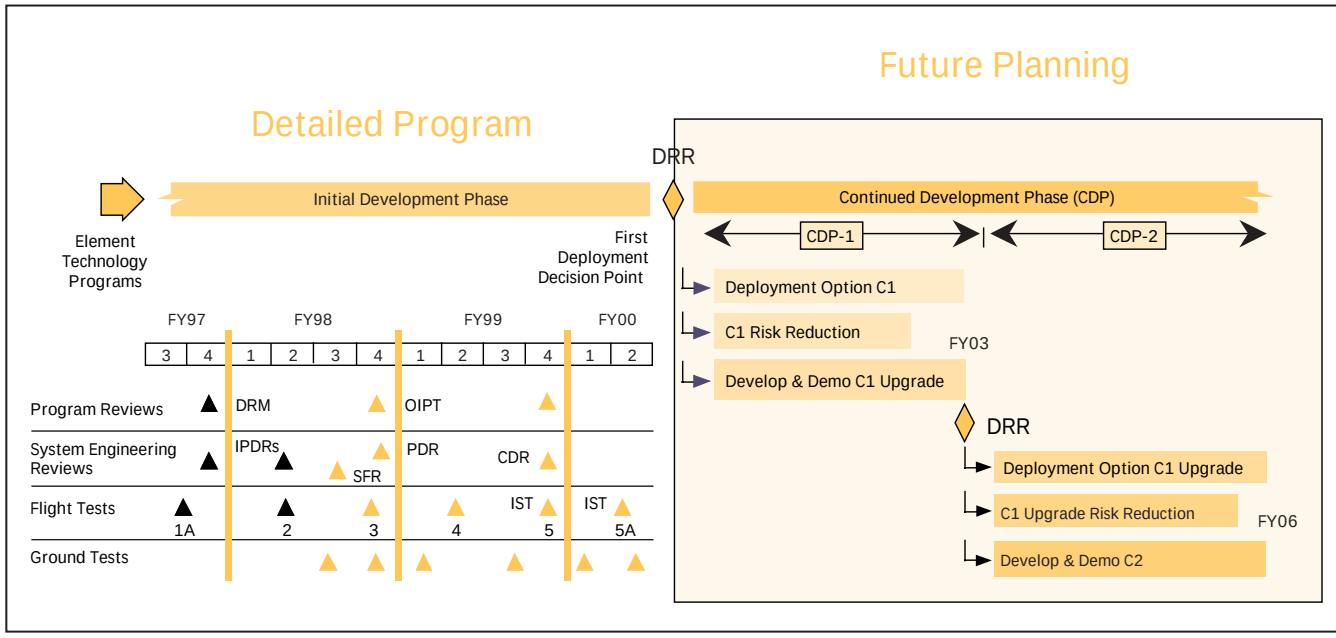
What is envisioned is a series of repeating periods, each of which starts with a DRR at which the content of the upcoming period is decided and baselined in the formal sense of the word. Progress through the period is measured against this baseline. In this way, everyone's expectations should be the same based on documentation that reflects the work planned to be accomplished.

The content of the work in a period is based on the DAE's decision regarding: deployment; continued risk reduction of the deployment option on the table; and the proposed upgrade development and engineering. This approach is similar to the Global Command and Control System Evolutionary Acquisition Strategy[1] which avoids focus on a grand design solution and breaks down a huge problem into manageable chunks. In this way, tangible products are fielded quicker and grow with technology and the user's changing needs.

Management Approach

The second element of the strategy, the Management Approach, reflects perhaps the most formidable challenge facing the new PM – how to forge one acquisition team from a set of disparate technology efforts, dispersed all over the country and among at least two Services and multiple agencies, each with

FIGURE 2. NMD Program Structure



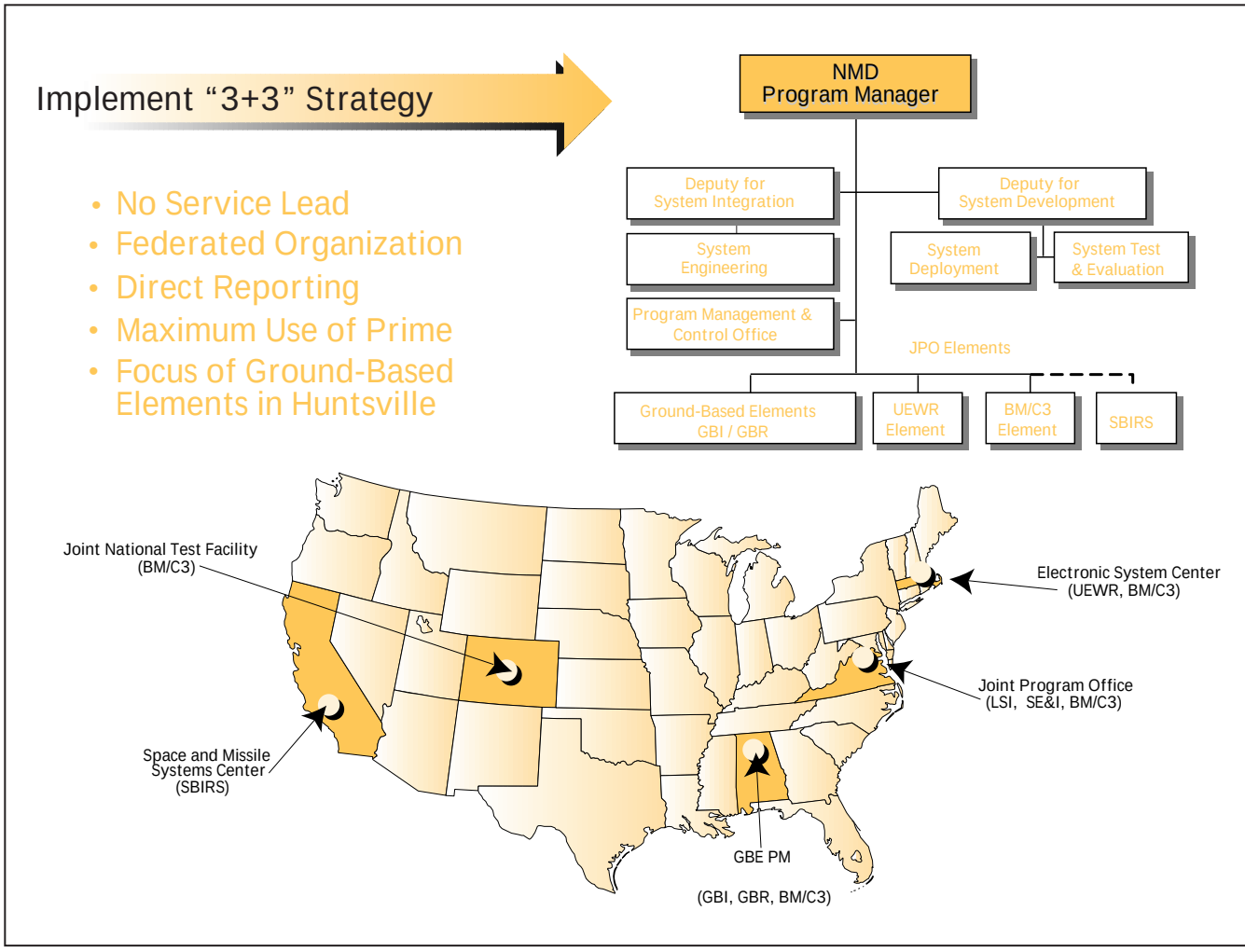


FIGURE 3. NMD Joint Program Office

vested interests and admittedly good ideas as to how the program should be managed.

After many meetings spanning several months with all of the involved principals, it was established that a Joint Program Office (JPO) would be formed. In the words of Secretary Cohen..."This PO will not be comprised of a single office located in Washington, but is envisioned as a geographically distributed organization with the people located where they can best manage the aspect of the program for which they are responsible. This 'virtual' or federated approach..."[2]

In addition, unlike all other JPOs, it was decided not to assign a Lead Service. Thus, the NMD JPO would remain an organizational element of the BMDO with the NMD PM reporting directly to the Ballistic Missile Defense Acquisition Executive. Similarly, the system element program/project/product managers, a part of the JPO but located in the Service product development centers, would report to the NMD PM. Figure 3 shows the JPO structure as it evolved to support the "3+3" concept.

Contracting Approach

The third element of the strategy, the Contracting Approach, addresses a long-standing concern among many government PMs: how to avoid placing responsibility for overall system integration and performance on the government.

Government acceptance of these responsibilities has always been a high-risk approach, even in the days of robust program offices (let alone in today's lean environment). Consequently, for a program like NMD with exceptionally difficult integration problems, establishing a means to improve the likelihood of successfully integrating the NMD system became a high priority for the JPO.

Their proposed solution was to put in place a single contractor to accept system integration and performance responsibility. Dubbed the "Lead System Integrator" or LSI, the contractor would gain, over time, contractual responsibility for the overall system as existing contracts are completed or terminated, as appropriate, by the government. The LSI would then write new contracts with the necessary contractors. After convincing skeptics in the building, the only question remaining was whether the defense industry would step up to the challenge.

The JPO planned a two-phased approach. First, in open competition, contractors would compete for a six-month study phase designed to establish a dialogue with industry regarding the best way to meet the very stringent demands of the "3+3" concept. Products would include planning documentation and key trade-off studies.

The JPO planned to award three $8 million contracts. Two bids were received – one from the United Missile Defense Company (UMDC), a joint venture among Lockheed Martin, Raytheon, and TRW; and the other from a Boeing-led team. The two contracts were awarded four months after Request for Proposal (RFP) release, and the contractors are currently competing for the single, follow-on award for the execution phase of the LSI effort. So far, the process for bringing on the LSI has worked very well. Reasons for this success include several initiatives:

LSI Home Page. The use of a widely acclaimed LSI Home Page on a limited-access, secure Internet site. Seventy-seven potential bidders received the draft RFP and subsequent procurement-related information through this medium. Having the contractors participate in this manner to refine the RFP reduced development time and led to a higher-quality product. Improved proposals, in turn, reduced evaluation time.

"Hot News" Features. In addition, near real-time "Hot News" features appear regularly, as do updates to the RFP. This innovation provides answers to contractor questions and informs all interested parties of "Hot News" as quickly and efficiently as possible. The cost of providing information in this way was insignificant compared to the routine, paper-intensive alternative.

Statement of Objectives. Perhaps more than any other program, NMD requires innovative solutions to solve issues such as how to achieve a three-year deployment time. Routine solutions simply will not work. To foster such innovative "out-of-the-box" thinking, the JPO used a Statement of Objectives (SOO) vice a detailed Statement of Work to provide as much latitude in contractor responses to the RFP as possible.

> "This [Joint] PO will not be comprised of a single office located in Washington, but is envisioned as a geographically distributed organization with the people located where they can best manage the aspect of the program for which they are responsible."

Contractor Flexibility. The contractors are allowed complete latitude to define accomplishment criteria, i.e., what the DRR should address. The government is establishing cost and schedule, so the contractors are being given maximum flexibility to define content.

Innovative Source Selection Procedures. Evaluation standards are being provided the contractors so they can better tailor their proposals to meet JPO needs. Draft proposals for the execution phase of the contract are being accepted by the government so that the evaluation team can begin early to understand the contractor's approach. And, the government's best value requirement focuses on the total cost of ownership rather than simply system acquisition cost.

If the current schedule holds, it will have taken the JPO approximately 16 months to bring the LSI on-board, or about the same amount of time had they simply selected, and spent about six months acclimating one contractor up-front. The principal advantage of the approach the JPO used is that the risk of selecting a less-qualified contractor is mitigated through the interaction between the government and the competing contractors in the six-month study/planning phase.

Resistance? Of Course!

As one could have predicted, when the PM initiated the IPT process to obtain buy-in and consensus on the proposed strategy, he encountered resistance. The two most pervasive issues were the lack of "Milestones" and the impact of their absence on program documentation and oversight; and how much of the QDR-recommended plus-up should be spent on additional testing.

The good news? The process worked. Not without pain and a lot of maintenance, but it worked! So well, as a matter of fact, that only a paper DAB was required and the Principal Deputy USD(A&T) commented at some length during the DAB Readiness Meeting as to the innovative nature of the strategy and how all programs should consider similar approaches to cut cycle time.

Will it work? It's simply too early to tell. Support of the program and its unique approach grows every day from all corners of the acquisition community. The program's momentum is building. Continued success in flight testing will be a big factor. The LSI will be a tremendous help. But, as the PM is quick to remind, the program remains high-risk, primarily because of schedule. Therefore, he is understandably reticent about endorsing such a radical departure from the Department's conservative model to other PMs who may not be faced with similar programmatic demands.

Okay, your turn. What would you do? I'm interested in hearing your comments or suggestions. Send them via E-mail to the following address: **peter.starnell-contractor@bmdo.osd.mil.**

REFERENCES

1. Information Briefing to Art Money, Assistant Secretary of the Air Force (Acquisition), "Global Command and Control System Evolutionary Acquisition Strategy," Nov. 5, 1996.

2. Letter from Secretary of Defense William S. Cohen to Senator Richard C. Shelby, Feb. 12, 1997.

DAU *convenes* BOARD OF VISITORS

Dr. Jim Price, DSMC Dean of Research, Consulting, and Information Dissemination; Donna Richbourg, Acting Deputy Under Secretary of Defense for Acquisition Reform; J. Ronald Fox, Tiampo Professor Emeritus at the Harvard Business School.

The Defense Acquisition University (DAU) again convened its Board of Visitors (BoV) at the DSMC main Fort Belvoir, Va., campus on Feb. 26, 1998, at the Packard Conference Center.

Meeting at least annually or at the call of the President, DAU, the Board's purpose is to advise the Under Secretary of Defense (Acquisition & Technology) and the President, DAU, on "organization management, curricula, methods of instruction, facilities, and other matters of interest" to the DAU. Also serving as the BoV for DSMC, the DAU BoV responds to requests from DSMC to address issues unique to the College.

During February's meeting, the Board addressed several key acquisition educational issues:

- Future Acquisition Reform Initiatives
- Defense Reform Initiative
- Process Action Team (PAT) on Acquisition Education and Training
- Results of the DAU Faculty Conference
- DAU Distance Learning Initiative
- Roles of the DoD, Army, Navy, and Air Force Directors of Acquistion Career Management (DACM)

Chaired by Tom Crean, President, DAU, the BoV presentations also included a briefing by Dr. James McMichael, Director for Acquisition Education, Training, and Career Development, on "Getting the Right Student to the Right Training at the Right Time."

Navy Rear Adm. "Lenn" Vincent, DSMC Commandant; Rich Reed, DSMC Provost and Deputy Commandant; Retired Air Force Lt. Gen. Thomas Ferguson, Jr., Senior Partner, Dayton Aerospace Associates, Inc.

Dr. James McMichael, DAU Director for Acquisition Education, Training, and Career Development; Tom Crean, President, DAU; Navy Rear Adm. "Lenn" Vincent, DSMC Commandant.

Photos by Richard Mattox

1998 DAU LOG ON

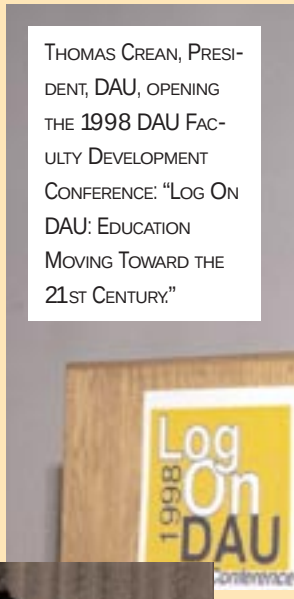
Faculty Development Conference

"Log On: Education Moving Toward the 21st Century" was the theme of the 1998 Defense Acquisition University (DAU) Professional Development Conference, held at the University of Maryland at College Park, Feb. 18-20.

As DAU and its consortium schools enter a new era of technology, learning how to capitalize on the evolving capabilities of technology to design and deliver courses is a top priority. The 1998 conference, designed for faculty members to explore these dimensions, offered attendees an opportunity to augment and enhance their educational skills using the new technology.

For those unable to attend the 1998 conference, be sure to visit DAU's Virtual Conference of the entire proceedings at **http://www.acq.osd.mil/dau/dauconf/** on the DAU Home Page.

1998 Log On DAU Conference

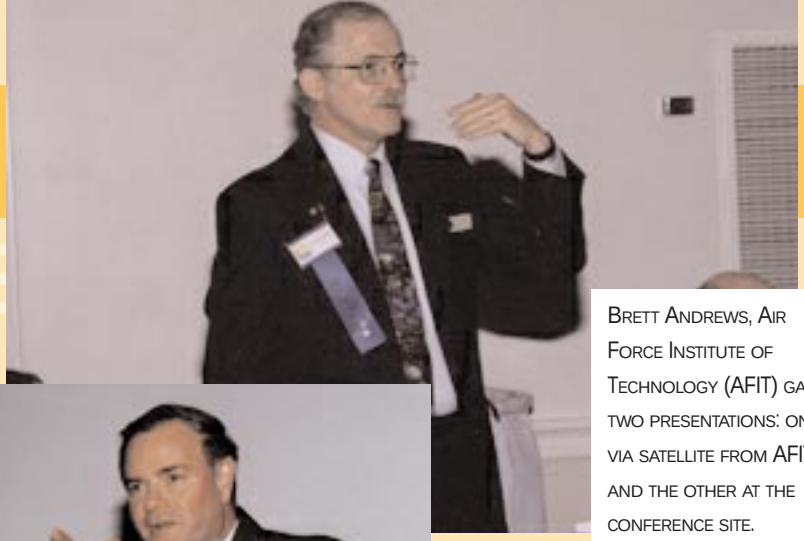


THOMAS CREAN, PRESIDENT, DAU, OPENING THE 1998 DAU FACULTY DEVELOPMENT CONFERENCE: "LOG ON DAU: EDUCATION MOVING TOWARD THE 21ST CENTURY."

KITTY CHISHOLM, DIRECTOR OF DEVELOPMENT, DISCUSSING OPEN UNIVERSITY, UNITED KINGDOM.

Photos by Richard Mattox

NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT, THOMAS CREAN, PRESIDENT DAU.



Brett Andrews, Air Force Institute of Technology (AFIT) gave two presentations: one via satellite from AFIT and the other at the conference site.

Air Force Maj. Art Greenlee, DSMC, presented "Making Case Studies Work for You."

Dr. Eric Levi, member of the DAU Board of Visitors; Dr. Lenore Sack, Director, Academic Affairs, DAU.

Dr. Eric Levi, member of the DAU Board of Visitors; Navy Rear Adm. "Lenn" Vincent, Commandant, DSMC; Richard Reed, Provost and Deputy Commandant, DSMC.

Dr. Jerome Smith, Dean, Information Resources Management College (IRMC); Dr. James McMichael, Director, Acquisition Education, Training, and Career Development, DAU.

"...Having a smaller acquisition workforce requires a more highly trained workforce. We must no longer treat education as a sideline to our primary mission. It must be tied directly to our jobs. We must remove the revolving door between classroom and workplace. They are both part of our job – acquiring, maintaining, building, and using skills."

—Dr. Jacques S. Gansler

1998 DAU Log On Conference

Faculty Development Conference *(Cont'd...)*

1998 Log On DAU Conference

Conferee visiting the Booz-Allen & Hamilton exhibit.

Dr. Robert Godwin-Jones, Virginia Commonwealth University, demonstrating "Getting Started with Web-based Instruction," using *Web Course in a Box* software.

Photos by Richard Mattox

Norman Crane, Information Resources Management College (IRMC), presenting "The Electronic Classroom."

Dawn Sheppard, host of the BRTRC exhibit, discussing exhibit handouts with Army Lt. Col. Bruce Moler, DSMC.

Kenneth Johnson, Army Logistics Management College (ALMC), provided television presentation techniques and individual coaching.

Conferees visiting the Air Force Institute of Technology (AFIT) exhibit.

Timothy Serfass, Army Logistics Management College (ALMC), discussing "Teaching on the Internet."

Conferees visiting the Naval Facilities Contracts Training Center (NFCTC) exhibit.

"Training and educating our workforce are my top priorities. Our acquisition team must know how to apply good, sound business judgment and adopt the highest level of professional standards. Unless we all know how best to do what we are doing; understand why are are doing it; and comprehend the benefits to be derived from doing it better, acquisition reform will not succeed."

—Dr. Jacques S. Gansler

1998 DAU Log On Conference

Faculty Development Conference *(Cont'd...)*

Log On 1998 DAU Conference

Conferees participating in active discussion.

DAU staff members, Betty Franklin, Robert Wolownik, and Carlton Drew, providing conference support.

Conferees checking the conference agenda.

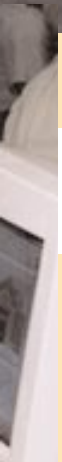
Photos by Richard Mattox

Conferees during a light moment.

Conferees break for lunch.

Conferee visiting the Defense Systems Management College exhibit.

Conferees Jim Childress, Iris Metcalf, Naval Center for Acquisition Training (NCAT); Ray Rasmussen.



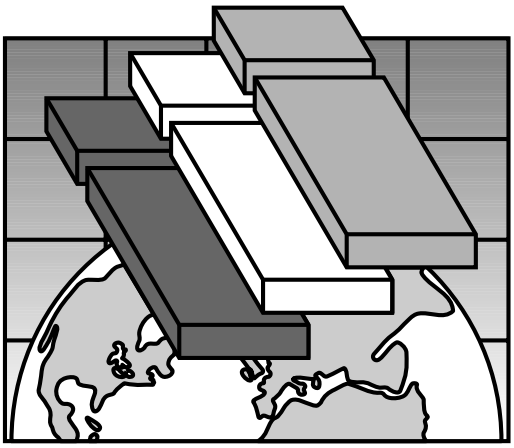
Tim Shannon, Acting Dean of Faculty, DSMC, attending online seminar.

Conferees participating in hands-on demonstrations.

CALL FOR ABSTRACTS

1999 ACQUISITION RESEARCH SYMPOSIUM

"Acquisition for the Future: Imagination, Innovation, and Implementation"



Co-hosted by the
Defense Systems Management College and the
National Contract Management Association,
Washington, D.C., Chapter

DoubleTree Hotel • Rockville, Maryland
June 21-23, 1999

The 1999 theme is *"Acquisition for the Future: Imagination, Innovation, and Implementation."* Abstracts of papers that address the theme and current issues in acquisition management will be especially relevant. Suggested topic areas include:

- Acquisition Reform Successes/Lessons Learned
- Business Process Reengineering/Benchmarking
- Commercial Applications in Government
- Competitive Acquisition Strategies
- Cost and Resource Management
- Federal Acquisition and the Political Process
- Industrial Base/Civil-Military Integration
- International Acquisition Issues
- Leveraging Technology in Acquisition
- Management Decision/Information Support Tools
- Organization and Cultural Change
- Outsourcing and Privatization

Please include in your one-page abstract the following: a concise statement of the problem/research question and the scope and method of your approach to that problem/research question.

Submit your abstract no later than July 31, 1998. Send your abstract(s) via E-mail, postal service, or facsimile. Contact information and the mailing address are listed below. To be fairly considered, all abstracts should include the following: *Title, Proposed Topic Area, Name of Author(s), Business Address, Telephone Numbers, and E-mail address* (if available). If more than one author is listed, please provide the name of the contact author, and we will address all future communications to that one person. You will be notified by September 30, 1998, whether your abstract is selected.

Send abstracts to:
JOAN L. SABLE
PROGRAM CO-CHAIR, ARS '99
DEFENSE SYSTEMS MGMT COLLEGE
9820 BELVOIR RD STE 3
FORT BELVOIR VA 22060-5565

Contact us by:
E-mail: ars99@dsmc.dsm.mil
Commercial: (703) 805-5406/2525
DSN: 655-5406
Facsimile: (703) 805-3856

Software Engineering Institute Publishes *Software Technology Review*

A Cliffs Notes Approach for PEOs, PMs, IPTs, and Support Staff

ROBERT ROSENSTEIN • KIMBERLY BRUNE • JOHN FOREMAN

The Software Technology Review takes information that is in the minds of experts and makes it available to everyone.

As a program executive officer, do you sit in meetings and wonder about the new technology being discussed? Are you comfortable the Request for Proposal (RFP) prepared by your staff will be clearly understood by potential respondents? Would you want your program manager (PM) to risk recommending a new technology for your organization without fully knowing its limitations and alternatives?

The *Software Technology Review*, through a ground-breaking project undertaken by the Software Engineering Institute, answers these questions. Now existing as a hard copy document as well as an active World Wide Web site, the *Software Technology Review* is a reference source that catalogs existing and emerging software technologies.

Motivation for Development

Work on the *Software Technology Review* was initiated in early 1996 when Darleen Druyun, Principal Deputy Assistant Secretary of the Air Force for Acquisition, asked the Software Engineering Institute to produce a prototype Software Technology Reference Guide that would provide information for the Air Force to plan research, development, and technology transition to satisfy DoD mission needs.

Primary Resource

Since meeting those objectives with the initial publication of a hard copy document in January 1997, the *Software Technology Review* has broadened its scope. In an effort to provide a primary source of information about software technology, we documented a shared common-knowledge base and provided a collection of high-level information that points to in-depth information.

To the best of our knowledge, a collection of this kind of information does not exist. In numerous cases, people are not aware of many of these technologies. Even if they are familiar with them, their perceptions are often off the mark. Currently, if you need information about a specific technology, you would ask the experts for their opinion; the *Software Technology Review* takes information that is in the minds of experts and makes it available to everyone. Our work minimizes the need to search extensively for this kind of information and, in turn, makes it easier to make educated decisions about software technology.

Rosenstein is the Software Technology Review *Project Coordinator, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, Pa. Brune is the Technical Writer-Editor for the* Software Technology Review *and Foreman is the Managing Editor. Both are members of the* Software Technology Review *Publications Staff, Software Engineering Institute.*

Benefits

A wide diversity of government-industry managers and executives use and promote the *Software Technology Review*:

- Executives find use of the *Software Technology Review* enables them to prepare better presentations and speeches because they have a more complete understanding of software technologies.
- Technical investigators use the *Software Technology Review* to point to documented experiences of use.
- Systems programmers utilize the *Software Technology Review* to obtain information that will enable them to properly evaluate proposals.
- Contractors benefit from the *Software Technology Review* by using the technology descriptions as a guide/reference baseline in their proposal writing.
- Organizations consult the *Software Technology Review* to capture a broad picture of the state of the practice.

Goals

The *Software Technology Review* is intended to be a reference source to specific software technologies of interest. The document has many goals, including —

- encapsulating a large amount of information so that the Program Executive Officer (PEO) or PM can rapidly read the basics and make a preliminary decision on whether further investigation is warranted;
- achieving objectivity, balance, and a quantitative focus, bringing out shortcomings as well as advantages;
- providing insight into areas such as cost, risk, quality, ease of use, security, and alternatives; and
- pointing to references and sources of more detailed information, including usage and experience.

Limitations

While the *Software Technology Review* strives to provide balanced coverage of a wide scope of technology, certain constraints restrict the content in the following areas:

- Not prescriptive. The *Software Technology Review* does not make recommendations, establish priorities, or dictate a specific path or approach.
- Not a product reference. The *Software Technology Review* is not a survey or catalog of products.
- Not an endorsement. Inclusion or exclusion of a topic in the *Software Technology Review* does not constitute an endorsement of any type, or selection as any sort of "best technical practice."
- Not a market forecasting tool. While the technology description may project the effects of a technology and discuss trends, other organizations produce more complete analysis and forecast reports.
- Not a focused analysis of specific technical areas. Various sources offer reports on a subscription or one-time basis and may also produce specialized analyses and reporting on a consulting basis.

Target Audiences

We developed the *Software Technology Review* to be used by PEOs, PMs, Integrated Product Teams (IPT), and their support staff in the following manner:

- Technology Transfer And Technology Insertion Guidelines
- Overview/Introductory Information
- Baseline Reference Document
- *Cliffs Notes* Approach (Provides High-Level, Four- to Six-Page Quick Study)
- Trade-off Information
- Taxonomies to Aid in Identifying Alternatives
- Back Pointers to High-Level, Related Technologies
- Criteria and Guidance for Decision Making

Current Availability

Prior to publication of the *Software Technology Review*, the first "official" release of this reference document was the *C4 Software Technology Reference Guide — A Prototype*, first published by the Software Engineering Institute and industry participants for the U.S. Air Force acquisition community in January 1997. Since then, our World Wide Web site became operational. The site has the most current technology descriptions as well as the latest Portable Document Format (PDF) and Postscript version of the document.

We Want Your Participation

The *Software Technology Review* is modeled after professional refereed journals (i.e., *Communications of the ACM* [Association for Computing Machinery], *IEEE Software* [Institute of Electrical and Electronics Engineers]), with volunteer authors, reviewers, or editorial board members. The Software Engineering Institute provides the overall management and coordination of the *Software Technology Review*.

The *Software Technology Review* team invites you to volunteer as a credited author, reviewer, maintainer, or editorial board member. With your participation, we can enhance the *Software Technology Review's* relevance and generate widespread community interest in its long-term development and maintenance.

Don't Hesitate to Contact Us

For more information, we invite you to visit our World Wide Web site at **http://www.sei.cmu.edu.** You may also contact Robert Rosenstein, project coordinator, at (412) 268-8468, or by E-mail at **str@sei.cmu.edu**.

TECHNOLOGY DESCRIPTION OVERVIEW

The purpose of a technology description is to identify a technology, characterize it in terms of the property of systems and measures of software quality that it affects, and point out trade-offs, benefits, risks, and limitations that may arise in various scenarios of use.

Each technology description also provides reference(s) to literature, indications of current maturity of the technology, and cross references to related technologies. Technology descriptions are not meant to be comprehensive. Each technology description provides the PM with enough knowledge to decide whether to investigate further, to find out where to go for more information, and to know what questions to ask in gathering more information.

Status. An assessment of the overall quality and maturity of the technology description.

Note. Prerequisite readings that provide an overview of the general topic area and establish a context for the different technologies in the area.

Purpose and Origin. General description and brief background of the technology. Includes what capability or benefit was anticipated when originally conceived, cites quality measures that are significantly influenced by the technology, and identifies common aliases as well as its originators or key developers.

Technical Detail. Answers the question, "What does the technology do?" Includes the salient quality measures that are influenced by the technology in all situations and describes trade-offs that are enabled.

Usage Considerations. Example applications into which this technology may or may not be incorporated and quality measures that may be influenced by this technology.

Maturity. An indication as to how well the technology is developed.

Costs and Limitations. Limitations and costs of using a particular technology; includes investments in other technologies, time, or money. Indicates a direct conflict with security or real-time requirements.

Dependencies. Other technologies that significantly influence or are significantly influenced by the technology.

Alternatives. An alternative technology is one that could be used for the same purposes as the technology being described.

Complementary Technologies. A complementary technology is one that enhances or is enhanced by the technology being described, but for which neither is critical to the development or use of the other.

Index Categories. Keywords under which this technology is indexed:

- Application category. How this technology would be employed, either in support of operational systems or in actual operations of systems.
- Quality Measures category. Quality attributes (e.g., reliability or responsiveness) that are influenced in some way by the application of this technology.
- Computing Reviews category. Technical sub-discipline within computer science into which the technology falls.

Technical Description — Sample Insert

Hybrid Automata

Status advanced

Purpose and Origin Hybrid automata form the basis for a specification and design technique for use in software support tools [Henzinger 94]. They were developed by Thomas Henzinger to broaden formal specifications to include continuous variables, such as response time and distance — that describe a system's operating environment.

Technical Detail Hybrid automata increase the completeness of specifications and the fidelity of models by allowing continuous properties of the operating environment to be specified and modeled directly. Hybrid automata are extensions of finite state automata to continuous quantities. Finite state automata provide mathematical foundation for reasoning about systems in terms of their descrete properties. In hybrid automata, state transitions may be triggered by functions on continuous variables. Any linear continuous property of a system can be specified and modeled using this technique. It is not clear whether hybrid automata can be usefully extended to nonlinear continuous variables.

Usage Considerations Hybrid automata are useful for developing systems that must interact in a substantial way with the physical world. Response time, as required in command and control, avionics, and air traffic control, is an example of such interaction. Because the resulting models are more faithful to reality, hybrid automata will likely contribute to increased correctness and reliability. Additional work is needed to determine whether this technique is extendible to nonlinear continuous variables and scalable to large systems of linear continuous variables.

Maturity The technique was devised around 1992 with a prototype model checker, HyTech, developed in 1994. The technique has been applied experimentally to a few cases, including verification of an industrial converter between analog and digital signals. This converter uses distributed clocks that may drift apart. The model checker automatically computes maximum clock drift so that the converter works correctly.

Costs and Limitations Adaptation of this technique requires knowledge of discrete mathematics at the level of automata theory and continuous mathematics at the level of differential equations.

Dependencies Hybrid automata are enablers for technologies that check the consistency of requirements for contiguous properties.

Alternatives

Other approaches to capturing and processing continuous properties of a system's operating environment have been stochastic methods, probabilistic automata, and dynamic simulation.

Complementary Technologies

Model checking is a useful approach for verifying that hybrid automata meet a specific requirement.

Index Categories

Name of technology	Hybrid Automata
Application category	Detailed Design (AP.1.3.5)
Quality measures category	Completeness (QM.1.3.1)
	Fidelity (QM.2.4)
	Correctness (QM.1.3)
	Reliability (QM.2.1.2)
Computing reviews category	Models of Computation (F.1.1)

References and Information Sources

[Henzinger 94]

Henzinger, T.A. & Ho, P. "HYTECH: The Cornell HYbrid TECHnology Tool," 265-93. *Proceedings of the 1994 Workshop on Hybrid Systems and Autonomous Control.* Berlin, Germany, October 28-30, 1994. Berlin, Germany: Springer-Verlag, 1995.

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External Reviewer(s)

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Modifications

10 Jan 97 (original)

DSMC Core Curriculum Now Includes Best Manufacturing Practices

Savvy Members of Acquisition Community Look to Navy's BMPCOE to Innovate, Cut Costs

LT. COL. DAVE SCHMITZ, U.S. AIR FORCE
ERNIE RENNER

Consider the following scenario. You're sitting at your desk in the program office, and in front of you is a Single Process Initiative concept paper provided by the contractor part of the acquisition team. Your boss just asked you to perform a technical evaluation of the proposed practice, part of it dealing with soldering.

Two Sides to Every Story

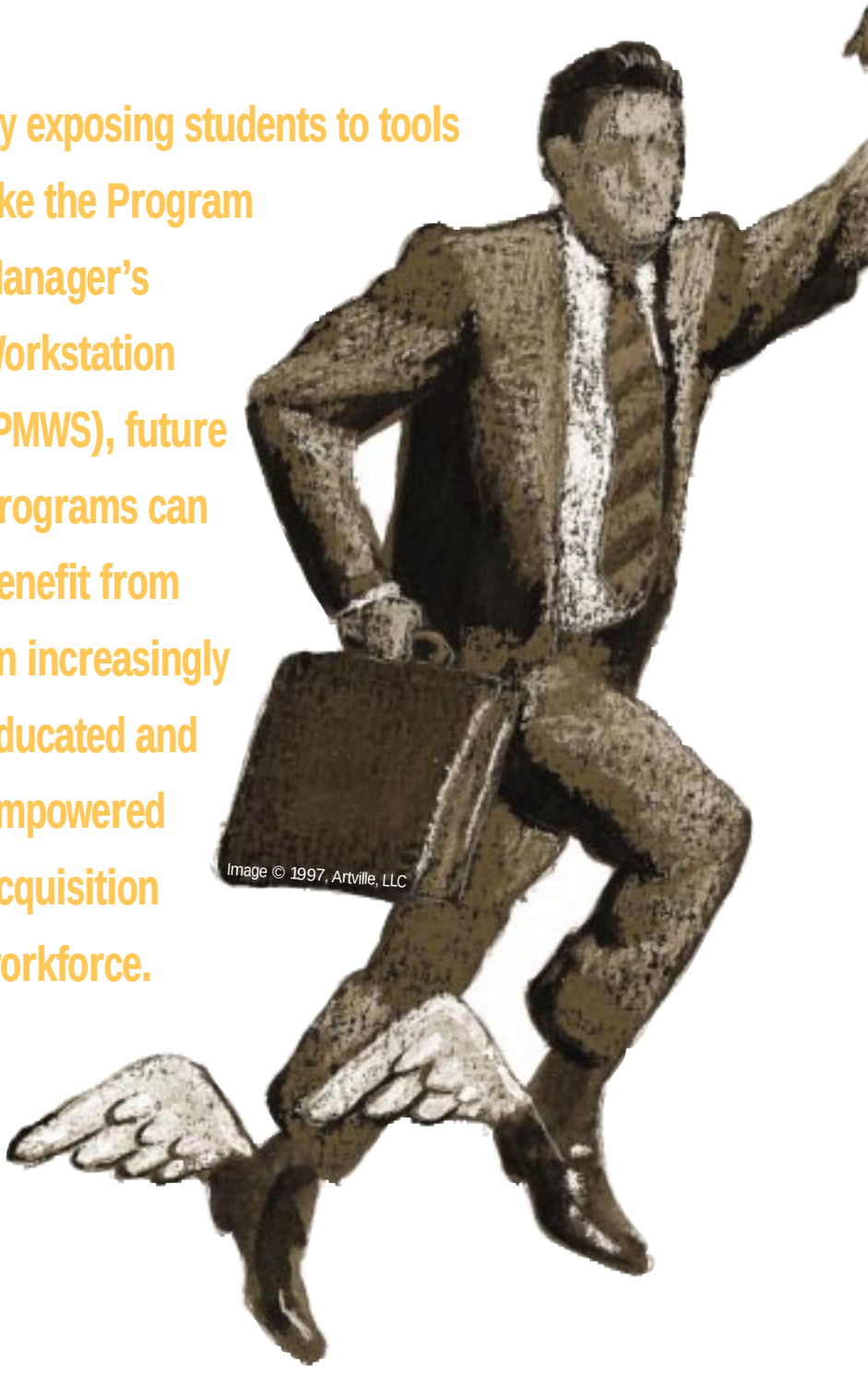
The contractor part of the team wants to use a commercial practice — the American National Standards Institute AS-4461A standard versus Mil-Std-2000A.

Admittedly, you're not an expert on soldering. To remedy that shortcoming, you "cruise" down the hall to engineering. Unfortunately, the engineers have recently been "right-sized," so neither of them is up on soldering.

No problem. You call the engineering home office of the support staff only to find they lack the expertise as well. Again, no problem.

You then "cruise" down the hill to the Air Force Research Laboratory, Materials and Manufacturing Directorate, only to find they're swamped and cannot devote any resources to you for two months.

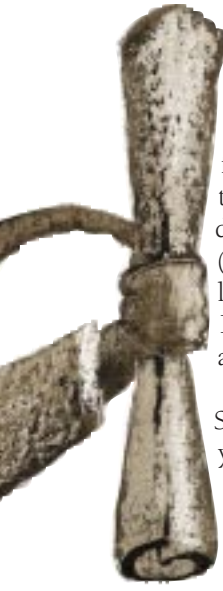
By exposing students to tools like the Program Manager's Workstation (PMWS), future programs can benefit from an increasingly educated and empowered acquisition workforce.



Schmitz is a Professor of Manufacturing Management, Manufacturing Management Department, Faculty Division, DSMC. Renner is Director, Best Manufacturing Practices Center of Excellence, University of Maryland at College Park, Md.

At this point, a level of real concern hits you. How do you determine the technical risk to your program for this process change?

On the other hand, you're the contractor part of the acquisition team. Defense Contract Management Command is pressuring you to substitute best commercial practices in lieu of government specifications and standards. In fact, DoD has forbidden you to use military specifications and standards on new contracts. (For example, you're no longer able to use Mil-Std-1528A. Manufacturing Management.)



Seeking more information, you get on the Internet and "hit" the Society of Manufacturing Engineers Home Page to see what the industry association's best practice is, only to find out there is none. Now what do you do? The risk to your program hasn't gone away. There just isn't any guidance. And, you don't have any idea of where to look for best practices.

Difference Between Success and Failure

At a time when senior leadership and the American taxpayer are expecting us to do more with less, knowing what resources to leverage can mean the difference between success and failure on your program. Savvy members of the acquisition community striving to innovate and cut costs, look to the Navy's Best Manufacturing Practices Center of Excellence (BMPCOE) for help.

Since 1985, the BMP Program's continuing goal is to help businesses by identifying, researching, and promoting world-class business practices across a wide spectrum of technical and management disciplines. This timely information is available to anyone with an Internet connection.

The BMPCOE is also part of the Navy's Manufacturing Technology Program. This program has other Centers of Excellence available to the acquisition professional:

- Composites Manufacturing Technology
- Electronics Manufacturing Productivity Facility
- National Center for Excellence in Metalworking Technology
- Navy Joining Center
- Energetics Manufacturing Technology Center
- Manufacturing Science and Advanced Materials Processing Institute
- National Center for Advanced Drivetrain Technologies
- Surface Engineering Manufacturing Technology Center
- Laser Applications Research Center
- Gulf Coast Region Maritime Technology Center

As you can see, these Centers of Excellence address many manufacturing concerns that have broad application beyond naval system development.

What Does DSMC Have to Offer?

Prior to the start of DSMC's Advanced Program Management Course (APMC) 97-3, BMP Program and Program Manager's Workstation (PMWS) training was offered as an elective for the APMC; now DSMC's Manufacturing Management Department offers the training as part of the core curriculum.[1] While the BMP Program is a Navy program established to foster the sharing of advanced technology throughout the U.S. industrial base, PMWS is a series of tools based on best government and commercial practices and proven engineering guidance.

From its inception, development, and subsequent application as the electronic medium used to convey best government and commercial practices and proven engineering guidance to the acquisition workforce at no cost, PMWS has proven its potential and intrinsic value to government, industry, and academia.

Within the DoD community, BMPCOE resources and PMWS in particular, are recognized as excellent tools for program management and acquisition reform. As a systems engineering tool, PMWS helps program managers with engineering issues such as design reviews, worst case analysis, risk management, and lessons learned. For the user, it also provides timely acquisition and engineering information, with workload reduction being a top priority.

Consisting of a series of knowledge-based software packages, PMWS has four main components:

KnowHow. KnowHow is an electronic library of expert technical assistance with an intelligent search capability, which includes government regulations that must be complied with; technical reference handbooks to help guide you through the design review process; and templates to take you through designing, funding, testing, and transition planning. This tool, with its on-screen helps, cuts document search time up to 95 percent.

Technical Risk Identification and Mitigation System (TRIMS). TRIMS is a technical risk management system that may be tailored to the user's needs. It identifies and ranks those program areas with the highest risk levels, providing the ability to conduct continuous risk assessments for preemptive corrective actions and to track key project documentation from concept through production.

BMP Database. The BMP Database draws information from the BMP surveys of industry, government, and academia to identify proven best practices in design, test, production, facilities, management, and logistics.

BMPnet. BMPnet provides communication among all PMWS users. The PMWS tools, developed by the Navy and available to all users at no cost, are centered on the engineering process itself, allowing the user to manage technical and process risks as engineering problems are surfaced, giving the user visibility at the earliest possible point.

Keeping in Touch

After completing DSMC training, many students maintain contact with the

BMPCOE, requesting briefings and presentations for their organizations. In fact, BMPCOE resources and tools are widely used throughout the entire DoD community and U.S. industrial base.

In addition, several program managers have acquired BMPCOE staff engineering support to help them manage program tracking and risk assessment for a wide diversity of DoD programs:

- Multifunctional Information Distribution System
- Standard Missile
- Advanced Amphibious Assault Program
- Surface Ship Torpedo Defense System

The bottom line is BMP/PMWS provides proven solutions to problems and risks associated with the DoD acquisition process.

Curriculum Integration

The BMP program and PMWS exposure play a key role in the entire Manufacturing Management (MM) portion of the APMC curriculum. As shown in the chart below, Design for Manufacturing Strategy I is the first lesson in the MM integrated exercise. This exercise is an 11-hour block of instruction designed to allow students to analyze a program of their choice, identify risks, and develop a strategy for mitigating those risks using the risk-reducing tools and techniques they learn in other MM lessons.

Strategy I primarily covers PMWS and follows a lesson designed to acquaint students with the various sources of production risks on acquisition programs; it precedes a series of five lessons that cover other manufacturing-related tools.

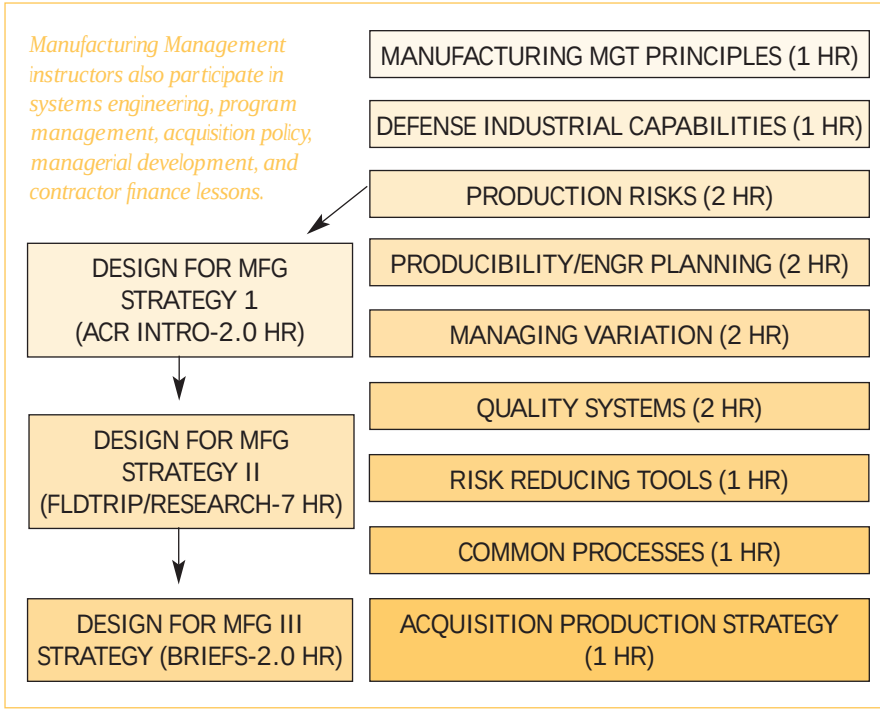
The 97-3 class was the first to receive this training, and their responses as well as other attendee feedback were very positive. A typical example was, "Excellent overview of system! Recommend this course to other program management office personnel. Good risk control/evaluation segment based on the Willoughby templates."

Another student said, "A good introduction of the PMWS, a software tool that will save you countless hours of researching DoD 5000 requirements. The risk analysis tracking tool is also very good."

The Qualitative Edge

DoD Directive 5000.1, Defense Acquisition, March 15, 1996, encourages program managers in paragraph 2.h. to "...continually search for innovative practices that reduce cycle time, reduce cost, and encourage teamwork." Deputy Under Secretary of Defense (International and Commercial Programs) Paul J. Hoeper, at the Sixth Semiannual PEO/SysCom Commanders/PM Conference,[2] exhorted program managers to "...give the qualitative edge to the warfighters. That's what we really need to do, and it's within that context that we have to reduce Total Ownership Costs."

Promoting these goals is a constant part of DSMC's mission; by exposing students to tools like PMWS, future programs can benefit from an increasingly educated and empowered acquisition workforce.



Manufacturing Management Curriculum Flow & Integration — APMC 98-1

REFERENCES

1. This training has been required for the Advanced Production and Quality Management Course for almost three years as well.
2. *Program Manager*, "DSMC Hosts Sixth Semiannual PEO/SysCom Commanders/PM Conference," Vol XXVI, No. 6, DSMC 141 (DSMC, November-December 1997), p. 80.

About DSMC

Anyone who desires to take a course offered by DSMC should first contact their local training office for detailed Service/Component/Agency procedures on how to apply for DSMC courses. The Service/Component-level points of contact listed in the DSMC 1998 Catalog (pp. 30-31) can advise on specific application procedures.

For catalog requests or general information about DSMC courses or schedules, call the Office of the DSMC Registrar at (703) 805-3681, DSN 655-3681, or Toll Free 1-888-284-4906. Information about DSMC courses and schedules is also available at http://www.dsmc.dsm.mil on the DSMC Home Page.

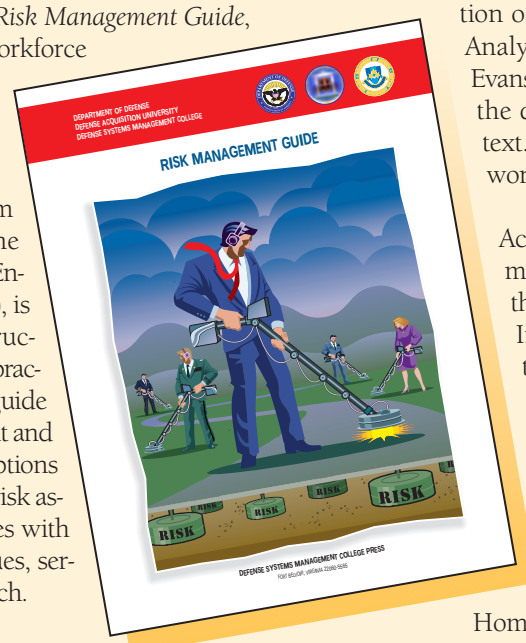
About the BMPCOE

Ernie Renner, Director, BMPCOE, is the point of contact for those interested in learning more about or using the resources of the BMPCOE:

Commercial: (301) 403-8100
E-mail: ernie@bmpcoe.org
Fax: (301) 403-8180

New DoD *Risk Management* Guide

The Defense Systems Management College (DSMC) Visual Arts and Press Department recently released for publishing a new DoD *Risk Management Guide*, providing the acquisition workforce a convenient reference for dealing with risks associated with systems acquisition.



The new guide, which evolved from a year-long study sponsored by the Office of the Director, Test, Systems Engineering & Evaluation (DTSE&E), is designed to aid in classroom instruction and also serve as a reference for practical applications. Included in the guide are the definition of a risk assessment and why it should be considered; descriptions of various methods for conducting risk assessments; and detailed appendices with additional information on techniques, service policies, and centers for research.

Mark Schaeffer, Deputy Director, Systems Engineering in the Office of DTSE&E, and chair of the working group conducting the study, stresses that the guide reflects the combined efforts and talents of many people from various disciplines. Schaeffer and Mike Zsak from the Systems Engineering Support Office of DTSE&E drove the risk management initiative, while Paul McMahon and Bill Bahnmaier from the DSMC faculty guided the composition of the guide. The Institute for Defense Analyses team of Louis Simpleman, Ken Evans, Jim Lloyd, and Gerald Pike compiled the data and wrote major portions of the text. Finally, the DSMC Press provided artwork and editing.

Acquisition professionals and program management officers can readily access the DoD *Risk Management Guide* on the Information Dissemination (Publications) link of the DSMC Home Page at **http://www. dsmc.mil/pubs/pubsgen. htm** on the World Wide Web.

Users may also access the guide through links from the DTSE&E and the Defense Acquisition University (DAU) Home Pages to the DSMC Home Page. The guide is available in print from the DSMC Distribution Center, available for purchase in print from the Government Printing Office (price and GPO Number to be announced), and may also be printed from microfiche by the Defense Technical Information Center and National Technical Information Service (ADA numbers to be announced) in late spring.

DTSE&E Establishes Systems Engineering Home Page

The Office of the Director, Test, Systems Engineering & Evaluation (DTSE&E) now offers a host of information related to Systems Engineering (SE) on its new Home Page! You'll find a wealth of information on several topics:

- DTSE&E Mission
- Systems Engineering (SE) Organization
- Key Areas of Responsibility
- SE Process
- Risk Management
- Value Engineering
- Manufacturing and Production
- Reliability and Maintainability (R&M)
- Quality
- Acquisition Logistics
- NATO/International Quality
- Software Engineering
- Integrated Product and Process Development (IPPD)
- Defense Acquisition Workforce Improvement Act (DAWIA) Training and Education
- Single Process Initiative
- Weapon System Acquisition Support
- Modeling and Simulation
- Publications and Documents
- SE Brief
- SE Job Announcements
- Speeches

In addition to the topics listed, the DTSE&E Home Page provides links to related Web sites and references to subject areas essential for ensuring product quality.

All of this and more! Also learn about upcoming SE events. Visit the DTSE&E Home Page today at **http://www.acq.osd.mil/te/programs/se/index.htm** on the World Wide Web.

THE WHITE HOUSE

Office of the Press Secretary

President Clinton Names Deidre A. Lee As Administrator for Federal Procurement Policy in the Office of Management and Budget

The President today announced his intent to nominate Deidre A. Lee to serve as Administrator for Federal Procurement Policy in the Office of Management and Budget.


Photo courtesy NASA

Deidre A. Lee, of Oklahoma City, Okla., has served as the Associate Administrator for Procurement at the National Aeronautics and Space Administration since March 1993. She rose through the ranks to become NASA's senior acquisition official and has a distinguished record as a reformer and innovator.

Lee has developed successful procurement initiatives at NASA, including the MidRange, Performance Based Contracting, Source Selection, Cost Control, Consolidated Contracting Initiative, and the Single Process Initiative/Block Changes. Previously, Lee served as the Deputy Associate Administrator for Procurement at NASA. From 1984 until 1990, she worked at the Johnson Space Center, as Chief of the Space Shuttle Procurement Division, Chief of the Orbiter and STS Integration Procurement Branch, and Chief of the Data Systems and Aircraft Operations Branch.

Lee began her career with the Department of Defense, including Base Procurement in Okinawa, Japan; Systems Acquisition at Hanscom Air Force Base, Mass.; and Logistics Procurement at Hill AFB, Utah. Lee is recognized as one of the Administration's most active and successful acquisition reformers, and has received NASA's Outstanding Leadership Medal, a NASA Exceptional Achievement Medal, and the Senior Executive Service Meritorious Executive Rank Award.

Lee received a B.A. from Central State University, Edmond, and an M.P.A. from the University of Oklahoma.

The Office of Management and Budget (OMB) evaluates and formulates management procedures and program objectives within Federal Departments and Agencies. The Administrator for Federal Procurement Policy provides direction in the development of procurement systems standards, resolves differences among agencies in the development of simplified government-wide procurement regulations and procedures, and ensures that regulations are consistent with the Federal Acquisition Regulation.

Editor's Note: This information is in the public domain and may be accessed from the White House Home Page at **http://library.whitehouse.gov/PressReleases.cgi** on the World Wide Web.

THE WHITE HOUSE

Office of the Press Secretary
(Los Angeles, California)

President Clinton Names Hans Mark Director of Defense Research and Engineering at the Department of Defense

The President today announced his intent to nominate Dr. Hans Mark to serve as Director of Defense Research and Engineering.

Dr. Hans Mark, of Austin, Texas, is currently a Professor of Aerospace Engineering and Engineering Mechanics at the University of Texas at Austin. Dr. Mark also served as Chancellor of The University of Texas System from 1984 to 1992. Prior to joining UT in 1984, Dr. Mark was the Deputy Administrator of NASA, having been appointed to that position in March 1981, by President Reagan. He was Secretary of the Air Force from April 1979 to February 1981, and Under Secretary of the Air Force from April 1977 to April 1979. Before coming to Washington, he was the director of the NASA-Ames Research Center in Mountain View, California, from 1969 to 1977.

Dr. Mark earned an A.B. degree in physics from the University of California at Berkeley in 1951, and a Ph.D. in physics from the Massachusetts Institute of Technology in 1954.

The Director of Defense Research and Engineering is the chief technical advisor to the Secretary, Deputy Secretary, [and] Under Secretary of Defense for Acquisition and Technology on defense science and technology development; priorities, programs and strategies, including scientific and technical matters; basic and applied research; and advanced technology development.

Editor's Note: This information is in the public domain at **http://www.library.whitehouse.gov/Press Releases** on the Internet.

Reengineering the Contract Change Process

Stepping "Out of the Box" to Achieve Dramatic Cycle Time Reductions

LT. COL. BILL PHILLIPS, U.S. ARMY

The Delta II SPO modified process resulted in a 77-percent cycle time reduction for the first test contract and even greater cycle time reductions in subsequent contracts. Project participants, challenged to see the contract process as they had never perceived it before, found the reengineering effort demanding yet exhilarating and revitalizing.

Photo courtesy McDonnell Douglas Space Systems Company

Phillips is the Director, Information Management and Assessment, Office, Assistant Secretary of the Army for Research, Development & Acquisition, The Pentagon, Washington, D.C.

Also contributing immeasurably to the successful research for this article, providing great insight into the contract change process as well as recent successes, were Robert Graham, a Certified Professional Contracts Manager and Delta II SPO Contract Negotiator; and Air Force lst. Lt. Tuan Nguyen, Project Engineer for the Delta II SPO.

The government contract change process is often considered inefficient and time-consuming by contractor and government personnel alike. Many statutory, regulatory, and agency policy requirements affect the process. Arguably, some requirements add value by ensuring that the process is consistent and fair. However, many requirements serve only to degrade efficiency, that is, result in excessive cycle times.

Last year I participated in a highly successful joint effort to reengineer the contract change process for the Department of the Air Force, Space and Missile Systems Center (SMC), Delta II Systems Program Office (SPO). The Delta II, which is capable of boosting a 4,000-pound payload into a geosynchronous transfer orbit, is used by the U.S. Air Force as the launch vehicle for the Global Positioning System, by the National Aeronautics and Space Administration as a medium launch platform for a variety of programs such as the recent Pathfinder mission to Mars, and by commercial agencies for many programs.

THE DELTA II, WHICH IS CAPABLE OF BOOSTING A 4,000-POUND PAYLOAD INTO A GEOSYNCHRONOUS TRANSFER ORBIT, IS USED BY THE U.S. AIR FORCE AS THE LAUNCH VEHICLE FOR THE GLOBAL POSITIONING SYSTEM, BY THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AS A MEDIUM LAUNCH PLATFORM FOR A VARIETY OF PROGRAMS SUCH AS THE RECENT PATHFINDER MISSION TO MARS, AND BY COMMERCIAL AGENCIES FOR MANY PROGRAMS.

The Delta II SPO modified process resulted in a 77-percent cycle time reduction for the first test contract and even greater cycle time reductions in subsequent contracts. Project participants, challenged to see the contract process as they had never perceived it before, found the reengineering effort demanding yet exhilarating and revitalizing. The following discussion focuses on factors contributing to success of the Delta II project that I consider essential in any reengineering effort.

Planning for Success

Careful, meticulous planning was of paramount importance to the Delta II project. Before people even began to work on the reengineering effort, fundamental issues had to be identified and addressed. These planning steps included establishing goals, securing senior-level support, defining reengineering, selecting team members, and empowering leaders.

Establishing Goals. The team's goal was to reduce the process cycle time from about 180 days to no more than 30 days, while improving efficiency and product quality. Accomplishing the goal involved incorporating a team concept at all project stages, converting requirements into contract modifications, and retaining only value-added activities from the old process. Once given the overall goal, the team developed and implemented the project schedule and milestones, both instrumental to success.

Securing Senior-Level Support. Many reengineering projects fail due to inadequate senior-level support. The success of the Delta II SPO project demonstrated how vital senior-level support and involvement are to a reengineering effort. Key senior leaders, including Air Force Lt. Gen. Lester L. Lyles, SMC Commander, offered tremendous support to the reengineering team. Lyles did not task the team to simply make improvements to the current process, but challenged it to seek "radical innovation" so as to implement an entirely new process focusing on improving efficiency, reducing cycle time, and ensuring process quality.

Strong leadership from the top down clearly established a path to success by creating an environment that promoted innovation, empowerment, and critical "outside the box" thinking. The leaders also provided the required resources and necessary project support, including strong backing for innovative changes, such as waivers to the Federal Acquisition Regulation requiring DoD or higher action.

Defining Reengineering. In the beginning, many team members devoted a significant amount of time to determining the project focus, struggling with reengineering versus basic process improvement. Some team members simply wanted to look at the old process and fine-tune as necessary.

Two elements drove the focus toward reengineering. First, senior leaders reaffirmed that the project participants were not just another process action team (PAT) devoted to reviewing and recommending changes within the current process boundaries. Rather, they emphasized that the Delta II PAT was brought together to seek radical innovation in process design in order to achieve significant cycle time reduction and greater quality. While reviewing the merits of reengineering versus process improvement, the reengineering team discovered that many PATs had preceded this effort with few positive results.

The second factor affecting the project focus and subsequently mission success was obtaining a proper definition for action. Project participants found the focus for the Delta II project in *Reengineering the Corporation* by Michael Hammer and James Champy,[1] who define reengineering as "The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed."

Robert Graham, contract negotiator for the Delta II SPO and a member of the project team, stated, "The reengineering team redefined the acquisition process for the program office using milestones to track progress and establishing a process owner to see the change through to completion. These two aspects were key to redefining the acquisition process."

Selecting Team Members. Another key to project success was the involvement of the contractor, McDonnell Douglas Aerospace (MDA) [now Boeing], which played a very proactive, positive role in the reengineering effort. Successful reengineering depends heavily upon ensuring the participation of organizations

having a stake in the contract change process.

In addition to the contractor, stakeholders included numerous government agencies, including the SMC, the Delta II SPO, the Defense Contract Audit Agency (DCAA), and the Defense Contract Management Command (DCMC).

The reengineering effort comprised two main groups: the champions and the reengineering team. The champions, top leaders from each oversight and support organization, facilitated the project effort by performing the following key functions: defining the effort, identifying and clarifying goals, determining and providing resources, providing guidance, and reviewing progress.

The champions also appointed the reengineering team members, each of whom was a process expert with an intimate knowledge of the contract change process. SMC members included subject matter experts in such areas as legal, contracting, engineering, and configuration management. The reengineering team performed the following key functions: interviewing key personnel, gathering data, processing observations, drafting reports, and preparing and conducting presentations. Active participation and openly sharing knowledge were high priorities for both the champion and reengineering teams.

The champions, top leaders from each oversight and support organization, facilitated the project effort by performing the following key functions: defining the effort, identifying and clarifying goals, determining and providing resources, providing guidance, and reviewing progress.

Empowering Leaders. From the onset, the champions clearly empowered the reengineering team to perform the mission and to implement a reengineered process. They also selected the reengineering team leader, which was an extremely important decision greatly affecting the project's outcome. The champions chose Air Force Capt. Greg Deabler, who possessed strong leadership traits and who was well versed in the contract change process, both key characteristics for success.

Defining the Old Process

The critical first step in developing a successful new process was to fully understand the old process (Figure 1). After conducting many interviews and performing hours of intense study, the team

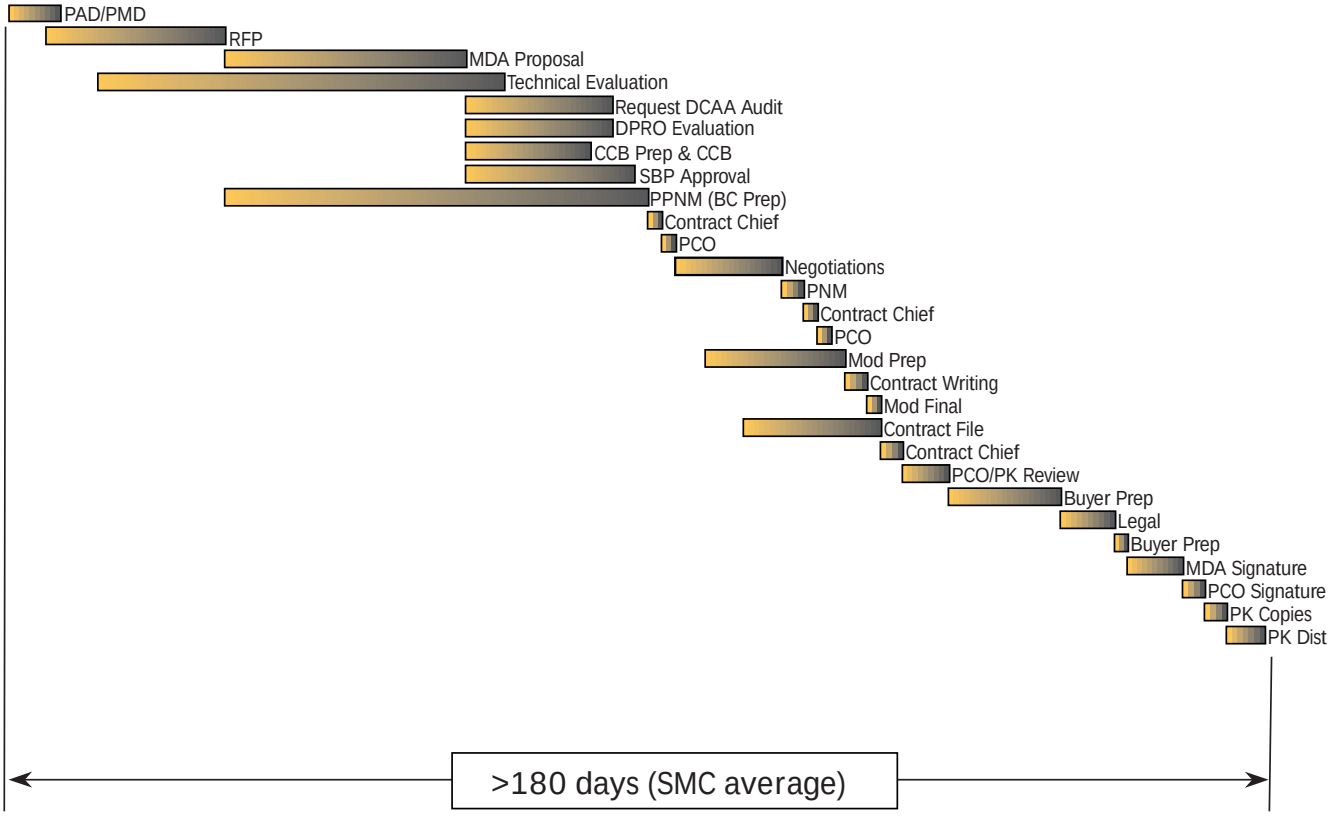


FIGURE 1. "Old" Process

discovered that the process was owner-less, sequential, and time-consuming. Contract change requirements simply flowed through individual reviews within the various organizations involved in the process. Consequently, process control and coordination were difficult to achieve.

Between the initial requirements document and the award of the contract, more than 25 hand-offs (separate actions) typically occurred. The process was reactive at best, often resulting in an undefined contract requirement, extensive fact-finding sessions, numerous reworks and reviews, and adversarial negotiations. The reengineering team identified that the old process had a tremendous number of nonvalue-added activities and recognized that streamlining activities, implementing a proactive approach, and eliminating nonvalue-added tasks were critical to achieving the project goal.

Integrated Product Team Approach

From analyzing the old process, the reengineering team concluded that an Integrated Product Team (IPT) approach, involving government and contractor personnel, was the most valid method for establishing leadership and ownership within the new Delta II SPO process (Figure 2). An IPT is essentially a multifunctional team. In this case, the IPT comprised engineering, integration, contract management, quality, and program management personnel.

The IPT approach benefited the reengineering process by streamlining coordination and communication between multiple functions, promoting a better understanding of issues affecting the process (synergistic effect), identifying better use of diminishing resources, and establishing ownership and responsibility for product delivery. The new reengineered process essentially established a three-phase operation aligned to the IPT framework, which eliminated the sequential and functionally aligned approach.

Phase I, Requirement Definition. Contrary to the previous contract change process in which parties typically discuss requirements and ownership is undefined for several months before any action occurs, the reengineered phase began with the IPT conducting a management review meeting to validate the requirement as well as assign an Officer of Primary Responsibility within the IPT, which clearly established ownership and ensured responsibility for product delivery. The user then verified the Statement of Work (SOW), and the IPT contracts members determined the applicable sections of the contract affected by the change.

Next, the IPT developed a Rough Order of Magnitude cost estimate jointly with the contractor and determined the availability of funds. Phase I concluded with the Procuring Contracting Officer (PCO) sending a letter to the contractor approving the IPT effort and authorizing the proposal development. This letter replaces the formal Request for Proposal and allows the contractor to accrue proposal costs.

Phase II, Proposal Development. In this phase, government and contractor IPT

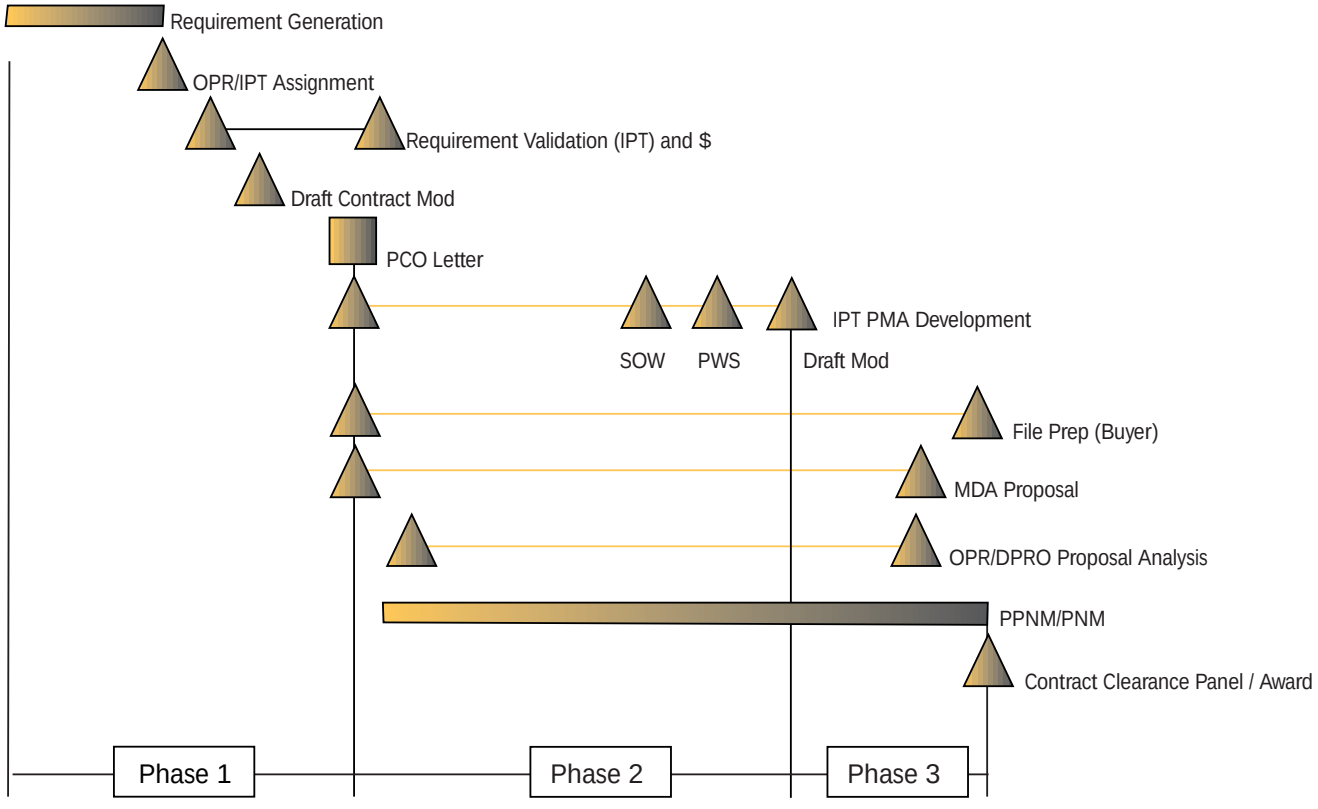


FIGURE 2. "New" Process

members concurrently developed and assessed the proposal. Major activities included finalizing the SOW, preparing the draft modification, conducting concurrent fact finding, achieving consensus on the Pricing Work Statement, and resolving configuration management issues.

In a process change that was nothing short of revolutionary, the DCMC and DCAA conducted their joint analysis in this phase, thereby eliminating the need to prepare and submit time-consuming formal audits. Instead, DCMC and DCAA incrementally audited the proposal.

Reviewing materiel rates and subcontractor proposals as MDA obtained them, the DCMC and DCAA concurrent proposal review avoided the traditional approach to processing audit reports and significantly reduced the cycle time. DCMC and DCAA satisfied Federal Acquisition Regulation requirements by executing a memorandum stating concurrence with the proposal, which replaced the extensive, detailed, and often untimely audit report. As a member of the IPT, the contractor concurred with the proposal build-up as well.

The SPO, MDA, DCMC, and DCAA executed a Memorandum of Agreement (MOA) establishing the new process and, most importantly, establishing a specific method for determining contractor profit in the absence of a Forward Pricing Rate Agreement (FPRA). This step totally eliminated the need for classic adversarial negotiations because the IPT built consensus with all parties during proposal preparation. Therefore rates, factors, and profit were determined by the FPRA and MOA. The exit criteria for this phase were the execution of the Business Clearance Approval and the authorization to submit the final proposal.

Phase III, Award. The last phase involved the critical IPT tasks of reaching final consensus on the proposal and submitting the results to the PCO. At this point in the reengineered process, time-consuming negotiations no longer were necessary because the personnel who typically conduct negotiations at the end under the old process had been intimately involved in the new process from the very beginning. The PCO simply performed a final review of the proposal with the IPT and executed the contract modification.

The new process clearly resulted in significant improvements, of which the most dramatic was the reduction in cycle time. The test contract modification took 38 days to execute — a 77-percent reduction in cycle time.

Implementation and Results

For the initial test case, the Air Force chose a contract modification for the Advanced Launch Control Systems Workstation. The new process clearly resulted in significant improvements, of which the most dramatic was the reduction in cycle time. The test contract modification took 38 days to execute — a 77-percent reduction in cycle time. Although the initial test case did not meet the Lyles' challenge to complete the project within 30 days, the case clearly validated the new process.

The clear consensus of the IPT members was that the experience they gained would result in further cycle time reductions in future modifications, and that 30 days was a valid goal. Subsequently, two follow-on contract changes — the new Launch Operations Building and the Graphite Epoxy Motor Test — were executed within the 30-day goal. Moreover, the new process eliminated more than 20 separate actions and reviews that normally occurred within SMC. Other significant improvements follow:

- Extensive use of IPTs with government and contractor membership resolved key concerns and issues real time.
- Ownership/Leadership clearly established with the Project Engineer within the Systems Program Office.
- Team reviews replaced sequential, time-consuming reviews.
- Preproposal analysis, fact-finding, and consensus building through real-time generation of supporting data eliminated the need for traditional negotiations.
- From participating in this project, both the leaders and the reengineering team members recognized that although reengineering takes scarce resources, the payoffs more than offset the costs. In the case of the Delta II SPO reengineering project, the payoff of reduced cycle time and greater customer satisfaction was substantial.

The SMC was also able to export the project success to other programs, exponentially increasing the impact. Currently, the SMC is incorporating the successful aspects of this effort into other launch programs. Given the success of the Delta II SPO's reengineering team, these programs will undoubtedly achieve similar, or even greater success!

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Value Engineering Means Using Technology to Cut Costs

DALE JAMES

REDSTONE ARSENAL, Ala.(Army News Service, Jan. 6, 1998) —When Maj. Gen. Emmit Gibson addressed the Aviation and Missile Command's Value Engineering (VE) and Operating and Support Cost Reduction (OSCR) awards ceremony in December, he made what may be remembered as a prophetic statement.

"For the next decade and beyond," Gibson told those gathered in the Sparkman Auditorium, "the real heroes of the Army's aviation and missile programs will be the people who make those programs affordable."

At a time when the Army is being asked to reduce its forces, today's soldiers are being asked to perform more diversified missions than ever before. Increasingly, they must rely on technology to help them accomplish those missions.

In the fields of aviation and missiles, that technology is provided largely by the various components that make up AMCOM. But even as soldiers must attempt to accomplish more with less, declining resources strain AMCOM's ability to bridge the gap with more capable technology.

Systems today must not only be effective, they must be affordable, and they must stay in the field longer than in the past.

Helping to meet that challenge are what the Value Engineering and OSCR, pronounced "Oscar," programs are all about, according to Tom Reynolds, VE/OSCR officer for AMCOM.

"Value Engineering," said Reynolds, "is a method by which you use engineering technology to save money."

Measured by that yardstick, the Aviation and Missile Command's Value Engineering programs were an undeniable success in 1997. The Aviation VE Command Office achieved $56.9 million in total savings, or 200 percent of its assigned goal. The Missile Command VE Office achieved $100.7 million in total savings, or 168 percent of its assigned goal.

The Value Engineering program runs the gamut from hardware to software to procedures.

"It's a problem-solving methodology," Reynolds explained. "It's where you ask, essentially, what does this item do? What is it supposed to do? And is there a better way to do that? In so doing, it takes technical things out of the technical world so even non-technical people can contribute ideas."

As an example of Value Engineering at work, Reynolds cited a proposal that involved the recovery and repair of expended MLRS [Multiple Launch Rocket System] bomblets.

"The bomblets were going to be scrapped. Through this methodology, we developed a method for recovering those parts that otherwise would have been thrown away," Reynolds said.

There are virtually no limits on the possible applications for Value Engineering, he added.

"The nice part of this methodology is that you can start with nothing and still generate a lot of good ideas, just by identifying the cost drivers," Reynolds said.

The OSCR program operates by soliciting cost-saving ideas concerning primarily spare parts and systems sustainability, which are then submitted to the Army Materiel Command for funding for prototype development and field testing.

This year the missile element of the OSCR program had eight local projects funded with an investment of $1 million and a projected savings of $19 million. The aviation element had two projects funded with an investment of $3.5 million and a projected savings of more than $176 million.

Editor's Note: James is a writer with the Redstone Arsenal's Public Affairs Office. This information is in the public domain at **http://www.dtic.dla.mil/armylink/news** on the World Wide Web.

Gansler Speaks at APMC 98-1 Graduation

"Your Personal Role in the Acquisition Reform Agenda"

COLLIE J. JOHNSON

CLASS PRESIDENT EDWARD L. SHELTON II, RECEIVES A LARGE, SYMBOLIC DIPLOMA ON BEHALF OF THE 371 GRADUATES OF APMC 98-1. PICTURED FROM LEFT: SHELTON; UNDER SECRETARY OF DEFENSE (ACQUISITION & TECHNOLOGY), DR. JACQUES S. GANSLER; NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT.

On April 17, Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler again delivered the keynote address for the graduates of the Defense Systems Management College's premier course, the 14-week Advanced Program Management Course (APMC). The Graduation Ceremony, conducted in Essayons Theater, at the Defense Systems Management College (DSMC), Fort Belvoir, Va., marked the conclusion of APMC 98-1 and graduation of 371 students from government and industry.

APMC 98-1 INDUSTRY STUDENTS, REPRESENTING SEVERAL DIVERSIFIED DEFENSE INDUSTRIES: LOCKHEED MARTIN ASTRONAUTICS; UNITED DEFENSE, LP; NORTHROP GRUMMAN CORPORATION; ALLISON ENGINE COMPANY; ROBBINS-GIOIA, INC.; PRATT & WHITNEY; THE MITRE CORPORATION; LOCKHEED MARTIN MICHOUD SPACE SYSTEMS; GENERAL DYNAMICS; BOEING GUIDANCE REPAIR CENTER; LOCKHEED MARTIN VOUGHT SYSTEMS. ALSO PICTURED: NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT (CENTER); NAVY CAPT. BOB VERNON, DEAN, SCHOOL OF PROGRAM MANAGEMENT DIVISION (FAR RIGHT).

Demographics

Graduates included active Army, Navy, Marine Corps, and Air Force officers and civilians; federal employees from the

Johnson is Managing Editor, Program Manager *magazine, Visual Arts and Press Department, Division of College Administration and Services, DSMC.*

Photos by Richard Mattox

"…You can use the lessons you have learned here at DSMC to become a leader in promoting Acquisition Reform throughout the Department."

Defense Logistics Agency, Defense Information Systems Agency, Special Operations Command, and On Site Inspection Agency; and 16 students from throughout the Defense industry. Their average age was 41.1 years; 67.6 percent held a Master's Degree or higher; their total years of government service averaged 16.9 years; and their years of prior acquisition experience averaged 10.

Honoring the Graduates

Beginning the program, Erika Densler sang The National Anthem, followed by Army Chaplain (Maj.) Larry Sweat who delivered the invocation. DSMC Commandant, Navy Rear Adm. "Lenn" Vincent welcomed the graduates, followed by an introduction of the keynote speaker, Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler.

The graduation ceremony was highlighted by Gansler's keynote address which, according to many of the graduates, gave them the inspiration to go back to their companies and DoD organizations, and actually put into practice new methods learned at DSMC of doing things faster, more efficiently, better, and cheaper.

DSMC Graduates Critical to Acquisition Reform

Acknowledging the importance of the occasion, Gansler told the graduates that the major challenges we face today and in the near future are the result of deferred modernization during the past decade. He spoke of the critical need to increase procurement dollars by shifting resources from support and infrastructure to modernization.

"With a fixed top line for the Defense budget," he told the graduates, "you become critical to the success of our effort. The acquisition reforms of the past few years must continue – and expand – if we are to meet our commitment to modernization while, at the same time, live within our overall budgetary constraints. This is not going to happen by waving a magic wand. It's going to have to come from you. And it's going to take hard work."

Speaking of the importance of an acquisition education – and continuing that education throughout their professional acquisition careers – Gansler said, "I know that some of you wonder what the activities of the past 14 weeks will mean in terms of your personal role in the overall Acquisition Reform agenda at the Department of Defense.

"All 371 of you will leave here today and go back to work – some of you to the Pentagon, others to various Departments in the Washington vicinity, and still others to distant parts of the country or abroad. How will your graduation from DSMC affect your day-to-day management decisions?"

◀ IT'S BEEN A LONG 14 WEEKS. STUDENTS FROM APMC 98-1 APPEAR SOMEWHAT WEARY BUT HAPPY ON GRADUATION DAY. ▼

"The answer is that you can use the lessons you have learned here at DSMC to become a leader in promoting Acquisition Reform throughout the Department. Highly trained and exper- ienced advanced program managers like you have made many direct contributions to the success of our transformation efforts."

He went on to cite the Defense Logistics Agency's use of "prime vendor" and "direct vendor" delivery practices, which cut the delivery time on medical supplies from 30 days down to 24 hours. Direct delivery from vendor to customer – often using Internet or electronic ordering technology – has now made it possible for military hospitals to cut the logistics tail to pieces by drastically reducing inventories, achieving cost savings in operations, and ordering only what is needed for current use.

DLA has reduced medical supply inventories by more than 70 percent since fiscal year 1991, with savings of $396 million. "Program managers," Gansler noted, "played a pivotal role in designing and implementing this highly successful effort to adapt commercial practices to Defense requirements."

Focusing on DSMC's continuing efforts to educate the acquisition workforce, Gansler praised the College for remaining alert to the changing Defense acquisition environment. Said Gansler, "As it looks to the future, DSMC must continue to produce highly skilled, innovative managers by continuing to adapt its curriculum to meet new requirements, and by training program managers to understand fully how we can restructure and fundamentally re-engineer our acquisition process."

Stay on Top of Change

Concluding his remarks, Gansler told the graduates that it was critically important they stay on top of the constant changes that will be made in the acquisition world over the coming years – that Acquisition Reform is a process of continuous improvement.

"You must make the extra efforts in this regard. I firmly believe that one person *can* make a difference! As you conclude your course – and head home – we wish you the best of luck and much success. We know we can count on your support."

Presenting APMC 98-1 Class President, Edward L. Shelton II with a large, symbolic diploma attesting to the graduation of all 371 students, Gansler received enthusiastic applause from the audience. Commented one graduate, "He made sure that we remembered the one and only reason that we are in this business: *to support the warfighter*."

Editor's Note: For those interested in learning more about the DSMC educational experience, the DSMC Home Page at **http://www.dsmc.dsm.mil** contains further information on DSMC class schedules and course eligibility. Also, please refer to an article in this issue by former industry student Gregory W. Bader, p. 84.

Inside DSMC

Army Lt. Col. (P) Joseph E. Johnson became Dean of College Administration and Services effective April 27. He is the former Commander, Defense Contract Management Command, Baltimore-Manassas. A graduate of Washington and Lee University, Johnson holds an M.S. in Contract and Acquisition Management from Florida Institute of Technology. In addition to several Service schools, he is a 1993 graduate of DSMC's Program Management Course, now renamed the Advanced Program Management Course.

Haeng Jung Kang became the International Cooperative Acquisition Chair, DSMC Executive Institute, effective April 6. He previously served as Director, International Cooperation Division, Ministry of National Defense, Republic of Korea.

George Krikorian, who held the Forrestal-Richardson Memorial Industry Chair as Professor of Program Management, retired from federal service on March 31. Appointed to the Memorial Industry Chair in June 1994, he previously occupied the American Defense Preparedness Association (ADPA) Richardson Chair, a position to which he was appointed upon his arrival at DSMC in October 1991. A Marine Corps veteran of the Korean War, Krikorian retires after a career spanning 44 years – seven years with DSMC and 37 years with industry.

Frank W. Swofford was appointed to the Forrestal-Richardson Memorial Industry Chair as Professor of Program Management on April 1. Formerly a partner of the Bingham Group, a defense consulting firm advising shipbuilding clients, Swofford's background includes 37 years of experience in DoD and U.S. industry, with major emphasis in weapon systems acquisition, program management, and hardware manufacturing. A graduate of Duke University, Swofford holds an M.S. in Applied Engineering Mathematics from the University of Colorado and also attended the Senior Executive Course at MIT's Sloan School. Appointed to the Defense Science Board in 1995, he also serves on several U.S. Industry Corporate Boards of Directors.

Hamre Says Defense Reform on Track

LINDA D. KOZARYN

BRUSSELS, Belgium — Five months after announcing a business reform plan aimed at cutting fat to save military muscle, Deputy Defense Secretary John J. Hamre reports progress is encouraging.

During an overnight stop here March 17, part of a five-day trip to Germany, Belgium, France and the United Kingdom, Hamre outlined Defense Reform Initiative achievements to date.

About 800 of the 1,000 employees slated to be cut or transferred from the Office of the Secretary of Defense have been identified by name, Hamre said. The reform initiative calls for a one-third cut of the agency's 3,000 employees.

Efforts are under way to create paper-free contracts, something the defense deputy admits even he thought was an impossible goal. "We've had detailed meetings with the Services, and I actually think we're going to come very close to achieving that," he said.

Switching from paper-intense contracts to using credit cards for purchases under $2,500 is also on track, Hamre said. These represent 70 percent of all DoD purchases, he noted.

"We've set a goal of trying to get 90 percent of all of our micropurchases done with credit cards by the year 2000. We're going to make that by this year — two years ahead of schedule."

A major part of the defense initiative calls for increased competition in contracting out jobs, Hamre said. Plans call for opening 120,000 functions through the Department to competition over the next four years.

"We've sat down with the military departments, and this year we will hold 30,000 competitions," Hamre said. "That's about 10 times as many as we had last year."

Reducing excess infrastructure was another major thrust of the plan. Hamre said the fiscal 1999 budget submitted to Congress includes funds to knock down 8,000 old, obsolete buildings, which will save on heating and maintenance costs. "That's a very important issue because it saves money right away," he said.

Progress on closing more military bases in 2001 and 2005, however, is not as encouraging as other areas of the reform initiative. "We're asking Congress for permission to do two more rounds of base closures," Hamre said. "They're not happy about it. I'm still hopeful we will get permission, but it's an uphill fight. That's certainly going to be the hardest battle."

Privatizing utilities, on the other hand, is making good headway. "We've been very aggressive in working with the military departments on privatizing utilities," Hamre said. "We've entered into several nationwide contracts to help local base commanders find cheaper ways to get electricity and natural gas and to bring conservation measures into the Department."

Improving educational opportunities within the Department is another reform focus. Although no formal announcement has been made, Hamre said Pentagon officials have an individual who will serve as acting chancellor for DoD's new program for higher education.

Overall, Hamre said, the Defense Reform Initiative is "actually making a lot of progress." A Pentagon staff position is being added to ensure it stays that way.

"We are going to bring in an individual whose sole job is going to be to monitor this and to think up other ways where we can become more efficient," Hamre said. "I hope we have this individual on board in a month or so."

Editor's Note: Kozaryn works on the staff of the American Forces Press Service. This information is in the public domain and may be accessed at **http://www.dtic.mil/afps/news** on the World Wide Web.

Released March 17, 1998

Graduation Day — APMC 98-1 Industry Student Shares Reflections, Experiences at DSMC

"A Place Where Many of Us Had a Great Learning Experience and Made Friends We'll Keep Forever"

GREGORY W. BADER

Photo by Richard Mattox

DSMC industry student Greg Bader, employed as the Large Military Engines Business Manager for Allison Engine Company, Indianapolis, Ind., graduates from APMC 98-1 on April 17 at Essayons Theater, Fort Belvoir, Va. Pictured from left: Frank Swofford, DSMC Forrestal-Richardson Memorial Industry Chair; Bader; Navy Rear Adm. "Lenn" Vincent, DSMC Commandant.

This day began like many other days, but it would not be a just another day. The alarm clock springs me out of bed and I peek out the window for a weather check. It is raining today, like it did most of the winter here in Northern Virginia – quite different than the winters back home in Indiana. Despite the weather, today will be a great day for over 300 students who will be graduating from the Advanced Program Management Course (APMC) at the Defense Systems Management College (DSMC), located at Fort Belvoir, Va. With a newfound enthusiasm, we will all return to work and begin implementing the new Acquisition Reform initiatives that we have been studying diligently the last several months.

Happy...But Sad Concurrently

On the way to graduation, the cars on the highway are weaving in and out sending mist onto my windshield, reminding me of the weather we experienced on the very first day of classes in early January. As I begin to reflect on my 14-week learning experience at Fort Belvoir, I realize that today is the last day that I will see many of my classmates who by now have become my friends.

Driving past the Belvoir Chapel, I say a short prayer that all the students will have a safe trip home from DSMC. They came from all parts of the country and spent nearly four months here, and all of them will be glad to be home with their families again. This 14-week TDY became part of an excellent educational and personal development experience that will benefit us for the rest of our careers.

Friends I made here included some of the finest people that I have ever had the opportunity to know...and I will miss them.

As I walked in my section's room on the last day (Room 83, Section K, more affectionately known as "K-Zoo"), things seemed different. Many of my fellow students had brought their families to share their graduation experience. Tables were pushed together in the middle of the room, and caterers brought in fresh fruit, bagels, and muffins.

Many students were quiet and reserved instead of trading the usual greetings and comments. I knew that all of us wanted to go back home and resume our normal lives; my senses also told me that many of us were happy and sad concurrently as we faced leaving our friends

Bader is a Large Military Engines Business Manager with the Allison Engine Company, Indianapolis, Ind. He is a graduate of APMC 98-1, DSMC, and holds an M.B.A. from Bowling Green State University.

with whom we had bonded in a unique manner and become well acquainted with — whether it was playing basketball or serving on Integrated Product Teams (IPT) — for the last three and one-half months.

Don't Miss Out on the DSMC Educational Experience

The DSMC offers the 14-week APMC three times a year, and the faculty are professionals, many with doctorates in their area of expertise who have served in the military. If you are planning on becoming an acquisition professional, either as a contractor or government representative, this class is outstanding!

The class of 300-plus students is split into different sections, and each section has approximately 30 students that are broken down into six teams. These groups function as an IPT over the entire course of the class and ultimately transform us from a collection of students from DoD and industry who are unfamiliar with each other, into a highly functional, specially trained team that leads discussions, gives presentations, solves problems, and integrates with other teams in our classroom.

In addition to the IPT and management development training, many opportunities for self-assessment and improvement exist. Over the course of 14 weeks, students receive instruction on a host of technical skills and benefit from several diversified experiences, such as: the program planning and budgeting process for government expenditures; Capitol Hill trips; earned value management; systems engineering; testing processes; manufacturing management; software engineering; contract and contractor management; and funds management. The APMC faculty teach all of these areas using IPTs, with actual cases solved by the teams to test and build their knowledge.

In addition to the seven hours of class per day, a typical day may also include tests (known as "assessments"), papers that are due, presentations to be made, and group projects that require dedication by all members of the team. DSMC reminds me very much of my graduate business school's approach to learning — *by doing*.

Understanding Each Other's Business Practices

As one of the 16 students from industry, I found it fascinating that both the government representatives and the contractors were able to experience a paradigm shift that helped us understand each other's business practices from a new perspective. We learned as much from each other as we possibly could, to the benefit of all of our companies and DoD organizations. As teams, we were able to create win-win solutions through the use of new Acquisition Reform techniques.

At the same time, the industry representatives were able to exchange information on the use of good commercial business practices, how those business practices integrate with Acquisition Reform, and also discuss the extent to which Acquisition Reform is actually being implemented within each student's respective industry.

We were able to illustrate and agree on many common frustrations facing us all, and regularly agree on the solutions by using Acquisition Reform initiatives and good business sense. This experience of working with actual case data, using the latest DoD acquisition policies and common business practices, was a tremendous learning experience for everyone.

To enhance our personal development and program management skills, DSMC has one of the finest learning resource centers (LRC) in the country. Self-improvement tapes, videos, books, and a staff willing to help everyone are there for the asking. Based on detailed, personal assessments that each student receives, a self-improvement plan is developed and used as the basis for many of our elective studies.

Many students listened to tapes driving back and forth to school each day. The topics were varied and covered subjects such as people management, conflict management, public speaking, business etiquette, life-long goal setting, balancing your personal life, and of course, program management. I took over 100 hours of electives from this LRC and felt like I just scratched the surface. So little time — and so many books, tapes, videos....

One Last Benefit of DSMC — Inspiration

The graduation ceremony was highlighted by Dr. Jacques S. Gansler, Under Secretary of Defense (Acquisition & Technology), who served as our keynote speaker and inspired us all to go back to our companies and DoD organizations, and practice doing things faster, more efficiently, better, and cheaper, in keeping with the vision of the Secretary of Defense. However, he made sure that we remembered the one and only reason that we are in this business: *to support the warfighter.* He received a very warm applause from the audience. We were now officially graduates of APMC 98-1!

As we stepped out of the auditorium into the outdoors, the rain had disappeared and the sun was shining through the partially cloudy sky — a good omen for APMC 98-1 graduates. As we moved back to our sections to receive our diplomas, a sense of elation was present in K-Zoo where I had spent the last 14 weeks. Handshakes and hugs were everywhere as congratulations were exchanged by everyone. Many were in a hurry to leave quickly to get home to see their families. Several had two-day automobile trips before they would reach their destinations.

In time the classroom emptied. As I looked around, I could still see the faces and personalities in each chair and at each table. To me, this empty classroom will never be just an empty classroom. It will be *my* classroom. It is a place where many of us had a great learning experience and made friends that we will keep forever. It is a place that I will always remember because of *what we learned*, *where it was*, and *who was there.*

It will always be remembered as a place where some of the finest professionals and friends gathered for 14 weeks to solve problems, learn about learning, think about thinking, and how to always manage upfront and early with the use of an IPT.

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Acquisition & Technology Presidential Management Interns

Meeting the Challenge for an Era of Change

Photo by Richard Mattox

Dr. Jacques Gansler, Under Secretary of Defense for Acquisition and Technology, recently met with Acquisition and Technology's newest Presidential Management Interns (PMI). As part of their indoctrination, they not only met the Under Secretary, but also received a few pointers on how to find their way around the Pentagon.

First established by Executive Order in 1977, the PMI Program is designed to attract to the federal service outstanding graduate students from a wide variety of academic disciplines who have an interest in, and commitment to, a career in the analysis and management of public policies and programs.

Assignments as a PMI may involve domestic or international issues, technological changes, criminal justice, health research, financial management, and many other fields in support of public service programs. Federal departments and agencies strive to provide interns with challenging and rewarding assignments. All cabinet departments and more than 50 federal agencies have hired PMIs.

Pictured from left: Stacy Closson; Susan West; Jeff Roncha; Joe Ferrara; Gansler; Adam Grissom; Kathleen Hickman; Frank Myers.

DSMC Names Gilchrist Enlisted Person of the Year

On March 12, 1998, at a ceremony conducted in Howell Auditorium, Defense Systems Management College (DSMC), Fort Belvoir, Va., Navy Rear Adm. "Lenn" Vincent presented Air Force Senior Airman Gerald Gilchrist the College's Enlisted Person of the Year Award for 1998. "Gerry" was chosen from a field of five nominees.

In addition to the Joint Service Commendation Medal, Gerry received an engraved plaque, a $100 savings bond, a $100 gift certificate to the Post Exchange, a 96-hour pass, and a reserved parking space for one year. A popular friend and colleague around the DSMC main Fort Belvoir campus, Gerry is a talented Visual Information Specialist in the DSMC Visual Arts and Press Department, Division of College Administration and Services. (**Editor's Note:** Gerry was promoted to Staff Sgt. effective April 1, 1998.)

AFRL Announces New Chief Scientist

LEAH BRYANT

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS) — The Air Force Research Laboratory, headquartered here, announced today its new chief scientist is Dr. Kenneth E. Harwell of the University of Alabama at Huntsville.

"We've conducted a methodical search for someone with the right mix of technical prowess, leadership ability, hands-on experience, and stature within the research community," said Maj. Gen. Richard R. Paul, AFRL Commander. "Dr. Ken Harwell meets all those criteria. We're delighted to have him join the AFRL team."

The laboratory plans, manages and conducts research and development activities for the Air Force to advance the entire range of aerospace and interrelated technologies. It has an annual budget of $2.5 billion, a government workforce of more than 6,500 people, and is located at 10 major sites throughout the United States.

"We're thrilled Dr. Harwell is coming on board," added Dr. Don Daniel, AFRL Executive Director. "We sought an exceptionally qualified leader for this technical position, and we're confident he's the right person for AFRL."

"I'm very pleased and very excited to be joining the excellent research team of the new Air Force Research Laboratory," Harwell said. "I'm looking forward to working with General Paul, Dr. Daniel, and the AFRL technology directors and their staffs to provide the leadership for performing the research needed to keep the nation at the forefront of aerospace technology throughout the next century. I'm awed at the magnitude of the task ahead of us as we continue to make the Air Force research program the best in the world."

Harwell will be the most senior technical advisor to the lab's commander. He will assist the commander in managing the technical content of AFRL's scientific and technology portfolio, while maintaining a university position through the Intergovernmental Personnel Act.

Currently, he is the Senior Vice President for Research and Associate Provost at the University of Alabama, positions he has held for almost 10 years.

The AFRL chief scientist evaluates the lab's total technical program, identifies gaps, and analyzes advancements in a variety of technical fields to determine their influence on lab programs and objectives. The person in this position also fosters collaborative efforts with foreign countries, other Services, universities, and industry. In addition, the chief scientist represents the lab to other DoD laboratories, major aerospace companies, NASA, FAA, and international research organizations.

As chair of the AFRL Research Council, the chief scientist provides executive leadership to the chief scientists of the lab's technology directorates to ensure the highest professional standards of technical quality are maintained. He also evaluates prospective candidates for critical positions and recommends people for senior-level technical positions.

The lab's workforce of military and civilian personnel is a diverse mix of professional scientists, engineers, administrators, and technicians. They work in a highly specialized, geographically separate complex of laboratory, office, and support facilities.

The laboratory was created in October 1997 from the consolidation of all Air Force science and technology assets. The laboratory has research sites at Wright-Patterson AFB, Ohio; Kirtland AFB, N.M.; Eglin AFB, Fla.; Tyndall AFB, Fla.; Bolling AFB, D.C.; Hanscom AFB, Mass.; Edwards AFB, Calif.; Brooks AFB, Texas; Rome, N.Y.; and Mesa, Ariz., as well as offices in Europe and Japan.

Editor's Note: Bryant is on the staff of AFRL Public Affairs, Wright-Patterson AFB, Ohio. This information is in the public domain at **http://www.af.mil/news** on the Internet.

Released May 6, 1998

AIR FORCE NEWS SERVICE

Air Force Unveils New Acquisition Reform Concept

WASHINGTON (AFNS) – Aiming to make acquisition better, faster, and cheaper, the Air Force is rolling out a more efficient process to acquire new weapon systems.

The acquisition and sustainment reinvention process will combine current reforms into a solid foundation across the entire acquisition and sustainment community. It will also create reform teams to study, develop, and test potential reforms before they are deployed across the Air Force. There also will be more emphasis on communication, education, training, and follow-through on performance gains for all reforms.

"We expect to achieve greater successes from every person, dollar, and hour that we expend to acquire and sustain our current and new weapon systems," said Darleen Druyun, Principal Deputy for Acquisition and Management.

This cultural shift is based on five key points:

- **Communicate:** Provides a clear, unobstructed, two-way path for getting workforce and industry process improvement ideas to senior Air Force leaders.
- **Integrate:** Provides long-term cohesion by aligning current and proposed reform initiatives, eliminating redundancy, and providing greater efficiencies.
- **Re-engineer:** Realigns processes based on careful investigation of needed improvements to the business process, plus proper alignment of workforce incentives to process and product.
- **Follow-through:** Validates initiatives before deployment and identifies relevant performance measures for improved product delivery.
- **Reward:** Gives incentives and rewards workforce innovation and support.

This new concept will take installation, system and sustainment process improvement ideas directly from the workforce and industry. Each new initiative will be tested and validated to make sure the result is smart, practical, and sustainable. The re-engineered process will deploy across the acquisition community with the tools, training, and guidance needed for an integrated acquisition process that is better, faster, and cheaper.

The Air Force used [the 1998] Acquisition Reform Week [III], May 4-8, as a forum to unveil this new approach to the workforce, through a live television broadcast from the Office of the Assistant Secretary of the Air Force (Acquisition). The broadcast included a panel discussion with [Dr.] Jacques Gansler, Under Secretary of Defense (Acquisition & Technology), along with Air Force and Defense Department leaders.

The broadcast aired from May 4. It was also broadcast as streaming video on the Internet at **http://www.safaq.hq.af.mil/reformweek**. It will also be sent to Air Force installations on the Air Force Education and Training Network.

Editor's Note: This information is in the public domain at **http://www.af.mil/news** on the Internet.

Released: May 5, 1998

There's No Place Like Home

When former Commandant, Air Force Maj. Gen. Claude M. Bolton, Jr., comes to town, he never fails to visit his DSMC family — the many friends and colleagues he still retains here. Recently promoted to two-star rank, he stopped by Howell Auditorium, Fort Belvoir, Va., on April 16 to renew old acquaintances and participate in DSMC's observance of Service Day. Bolton served as the College Commandant from March 1993 through March 1996. He is currently the Director of Requirements, Air Force Materiel Command, Wright-Patterson AFB, Ohio. Pictured from left: Tony Kausal, Air Force Chair, DSMC Executive Institute; Air Force Maj. Lori McConnell; Bolton; Air Force Maj. Geoffrey Lum; Air Force Lt. Col. Edgar Wright. (McConnell, Lum, and Wright are recent graduates of the College's premier course, the 14-week Advanced Program Management Course, APMC 98-1.)

Naval Vessel Register (NVR) Now Online

www.nvr.navy.mil

The Naval Vessel Register (NVR) is the official inventory of ships and service craft in the custody of, or titled by, the U.S. Navy. Referred to by Congress in the statutes of the United States Code, Title 10, Sections 7304-7308, the NVR is maintained, as directed, by U.S. Navy Regulations, Article 0406, Sept. 14, 1990. Vessels are listed in the NVR when the classification and hull number(s) are assigned to ships and service craft authorized to be built by the President, or when the Chief of Naval Operations (CNO) requests instatement or reinstatement of vessels, as approved by the Secretary of the Navy (SECNAV). Once listed, the ship or service craft remains in the NVR throughout its life as a Navy asset, and afterwards its final disposition is recorded.

The NVR has been maintained and published by the Naval Sea Systems Command (NAVSEA) Shipbuilding Support Office (NAVSHIPSO) since 1962. The NVR now exists as an electronic document only. It is maintained and updated weekly. Over 6,500 separate record transactions are processed annually with each being supported by official documentation. The NVR includes a current list of ships and service craft on-hand, under construction, converted, loaned/leased, and those assigned to the Military Sealift Command. Ship class, fleet assignment, name, age, homeport, planning yard, custodian, hull and machinery characteristics, builder, key construction dates, battle forces, local defense and miscellaneous support forces, and status conditions are some of the data elements provided.

DSMC Hosts Seventh PEO/SYSCOM Commanders Conference

"One Person Can Make a Difference"

DR. DANNY L. REED

"...Innovative program managers can have an impact on successful programs — one person can make a difference."

—Dr. Jacques S. Gansler
Under Secretary of Defense
(Acquisition & Technology

Those few, succinct words set the tone for the Seventh PEO/SYSCOM Commanders Conference, held at the Defense Systems Management College (DSMC), Fort Belvoir, Va., April 14-15. A biannual event sponsored by the Defense Systems Affordability Council, the theme chosen for the spring conference was "Reform — The Way Ahead."

Off to a Good Start

Retired Air Force Lt. Gen. Tom Ferguson delivered the opening and administrative remarks, followed by Navy Rear Adm. "Lenn" Vincent, DSMC Commandant, who welcomed the conferees. Joseph Eash, the Principal Deputy Under Secretary of Defense (Acquisition and Technology), introduced the keynote speaker, Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler.

Gansler told the conferees that after five months on-the-job, he is more convinced than ever that the three main challenges for the Acquisition Workforce remain: 1) modernization of existing equipment; 2) development and deployment of new systems required for the 21st century warfighter; and 3) supporting those systems efficiently and effectively.

KEYNOTE SPEAKER — UNDER SECRETARY OF DEFENSE (ACQUISITION & TECHNOLOGY), DR. JACQUES S. GANSLER.

Acquisition's job, according to Gansler, is to lead and implement innovative changes, lower costs noticeably, and create faster cycle times. He noted that the Acquisition Workforce is unequivocally committed to reduction of cycle times by at least 25 percent.

Speaking of the shift in DoD's defense strategy since the end of the Cold War, he told the conferees that DoD's current defense strategy against asymmetric threats must anticipate nuclear, biological, and chemical weapons; information warfare; and low-cost cruise and ballistic missiles. "We must counter," said Gansler, "by providing warfighters with superior information and weapons." He noted that unlike the last decade's deferred modernization program, funds that previously supported infrastructure have now, because of base closings, been shifted to help pay for today's modernization.

New acquisition business practices and processes for government and industry, such as the Single Process Initiative, are reducing costs. A former industry leader, Gansler has the advantage of both a government and industry perspective on the challenges of Acquisition Reform. For example, high-volume commercial items, he told the conferees, when co-produced with lower-

Reed is a member of the Research Staff, Institute for Defense Analyses.

Photos by Richard Mattox

volume defense items, can result in 50 percent less cost.

He also said that cost accounting barriers must be removed. One way of reducing costs is through competitive sourcing; yet, he notes that some companies, like Hewlett-Packard, no longer perform DoD contracting. Gansler attributes this to historically burdensome government acquisition processes and procedures imposed by DoD on many of its contractors.

Said Gansler, "Logistics must be modernized." Citing a specific example, he referred to parts destined for the Persian Gulf that took DoD 40 to 60 days to deliver. Identical parts delivered for non-military Caterpillar customers are delivered worldwide within four days — or the customer simply does not pay. "On an order of magnitude," he pointed out, "[Caterpillar's delivery time] indicates a far better performance."

In the private sector, restructuring has been largely successful due to industry's focus on core business. DoD, he contended, must also rely on private sector sources to reduce cost for maximum value. Government cost accounting concentrates on accounting for every hour and providing a complete audit trail; private sector accounting practices concentrate on lowering price.

Science & Technology (S&T) Transition

Following Gansler's keynote address, Dr. Lance Davis, Acting Director of Defense Research and Engineering, gave the first presentation of Day 1. Speaking on the topic of "S&T Transition," he began his discussion by referencing the *Joint Vision 2010* model, and how military superiority, for the 21st century warfighter, will be enabled by *technological* superiority.

There can be no technological superiority, according to Dr. Davis, without investment sustainment in S&T. Currently, most DoD science and technology funds go to industry, though the bulk of the 6.1 basic research money goes to universities. Citing recent statistics, Davis

Deputy Under Secretary of Defense (Acquisition Reform), Stan Soloway.

From left: Assistant DUSD (Systems Acquisition), Donna Richbourg; Principal Deputy to the DUSD(AR), Joseph J. Eash; John Taylor, Minister of Defence Materiel, British embassy; DUSD (International & Commercial Programs), "Page" Hoeper; DUSD(AR), Stan Soloway.

Navy Rear Adm. "Lenn" Vincent, DSMC Commandant.

noted that while DoD provides only 9 percent of total basic research funding, the DoD is responsible for 55 percent of all federal government engineering research funding, and about 65 percent of electrical engineering funding.

"S&T investment sustainment," said Davis, "is absolutely vital. Further, a mix of technologies — in the F-117 and Comanche systems, for instance — ends up leading to break-through technologies for the warfighter." Davis pointed out that F-117 stealth is not a single technology, but a combination of research into fly-by-wire, radar cross-section, fluid dynamics, Forward Looking InfraRed, target trackers, and laser designators.

"Sometimes it takes multiple transitions of technology into a single system in order for you to recognize that important transitions have occurred," Dr. Davis said. He also pointed out that, regrettably, in the S&T community, best practices for getting technologies ready to transition to the program manager are often recognized, but not always used. However, the S&T community is continuing to work on issues of educating their managers to recognize the value of Integrated Product and Process Development training and the use of Integrated Product Teams (IPT).

COSSI

Acting Assistant Deputy Under Secretary of Defense for Dual Use and Commercial Programs, Robert Hertzfeld; and Marine Col. Robert Forrester, Program Manager for H-53 and Executive Helicopters, spoke on an Acquisition Reform initiative that has received a lot of attention in recent months: "Commercial Operations and Support Savings Initiative — COSSI."

Hertzfeld noted the trend toward increased reliance on more commercial products to lower life-cycle costs, using Commercial Off-the-Shelf Technology (COTS) or near-COTS products. COSSI experience to date, he said, includes close to 50-percent cost sharing, as well as $3 billion in potential cost savings for an investment of $100 million. Future plans include a $100 million budget request for fiscal year 1998.

Following Hertzfeld's discussion, Forrester spoke on COSSI from a program manager's perspective. Said Forrester, "COSSI is much more than just an opportunity to support programs with other people's money."

New rotorcraft diagnostics developed by B.F. Goodrich, he noted, now provide information directly to the user on the flightline, not lab-coated technicians. In essence, the new rotorcraft diagnostics, according to Forrester, are "providing interface with automated maintenance programs — programs that provide real-time information, not data."

COSSI, he added, cuts turnaround time, encourages partnering with the commercial sector, and creates IPTs with industry and government team members. It also prolongs the life of H-53 and H-60 legacy systems, is transportable, scalable, and reduces cycle time.

ART MONEY, SENIOR CIVILIAN OFFICIAL FOR THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (C^3I).

Global Combat Support System — Acquisition Perspective

Air Force Brig. Gen. Gary Salisbury, Deputy Director for Engineering and Interoperability, Defense Information Systems Agency; and Marine Col. Phillip Yff, Chief, Logistics Information Systems Division, J-4, presented "Global Combat Support System — Acquisition Perspective."

Discussing the transition from stovepipe to integrated information, Salisbury said that the Global Combat Support System (GCSS) will improve warfighter efficiency and combat effectiveness. "Transition from the Global Command and Control System (GCCS) to GCSS," said Salisbury, "will provide combat support information from Joint Chiefs down to individual warfighters."

Following Salisbury's remarks, Yff noted that Windows™ was developed in the '80s, but was not popular until about 1991, when developers began using it as a Common Operating Environment (COE). The GCSS conceptual approach, according to Yff, uses the Defense Information Systems Agency (DISA) Web Site as a COE. It takes functional areas and moves them back and forth to get a cross-benefit increase. Said Yff, "If developers comply with COE standards, product can be integrated, instead of stove-piped, by extraction of valuable information and data exchange."

Citing a success story about Automatic Identification Technology (AIT) used in the Gulf, Yff said, "This AIT technology merged government and commercial information (like Federal Express). A business process server enables AIT and non-AIT data to be separated." He notes that the technology has already been inserted in legacy systems that never envisioned AIT. "If a program manager adheres to a COE," Yff stated, "life-cycle costs go down."

FAR Part 15/Past Performance

LeAntha Sumpter, Senior Acquisition Reform Specialist, Office of the Deputy

Under Secretary of Defense (Acquisition Reform), spoke on "FAR Part 15/Past Performance."

Highlighting recent changes in FAR Part 15, she focused on the following issues:

- Past performance should be addressed during a source selection, even when award without discussions is planned.
- The paradigm associated with determining a competitive range has been changed from "when in doubt, leave them in" to "when in doubt, leave them out."
- A competitive range determination can be reduced for efficiency by the contracting officer.
- Competitive discussions and the number of revisions can now be tailored to each offeror's proposal.
- The conferees should "be creative" on past performance information and substitute information regarding predecessor companies.

International Cooperation

"Page" Hoeper, Deputy Under Secretary of Defense (International and Commercial Programs) focused his remarks on "International Cooperation."

Hoeper stressed the military, economic, and political goals of armaments cooperation. He also warned about some pitfalls from the failure to cooperate. "One of the things that over-capacity can get you to is a trade war in armaments, where more and more capability is sold to increasingly undesirable parts of the world, at lower and lower prices," Hoeper said.

Overall, Hoeper felt that we are doing a good job of cooperation at the technology end of the spectrum. But, we need to continue to press for increased cooperation on major defense systems.

The British Smart Procurement Process

The luncheon speaker for Day 1 of the conference was John Taylor, Minister of Defence Materiel, British Embassy, who spoke on "The British Smart Procurement Process."

Currently, Great Britain's Defence Industry is facing post-Cold War force reductions, greatly impacting their procurement policies and practices. "Great Britain's Smart Procurement Process," said Taylor, "has a great deal in common with Acquisition Reform efforts underway here in the United States."

The British also are moving, according to Taylor, toward Acquisition Reform in several areas: open competition; value for money; no support to industry; informing industry of future programs; risk management; and "eyes on, hands off" management style.

Lean Thinking for Program Management

Following lunch on Day 1, Dr. James Womack, President, Lean Enterprise Institute, presented "Lean Thinking for Program Management."

The Lean Enterprise Institute attempts to transfer effective techniques to other companies. Dr. Womack was involved in the early MIT studies of the automotive industry that identified the strengths of Toyota's operation. The automotive industry, Womack said, was chosen for the studies because cars are similar; therefore, differences in production are clearer.

He went on to say that Toyota's production system is only part of the picture — their total business system must be scrutinized. Said Womack, "It's not about the company, but about the embodied ideas."

The fundamental difference between organizations that are lean and not lean is the difference between looking up and looking down. Western companies, he explained, tend to look up at organizational charts — lean organizations like Toyota look down at the shop floor and ask, "Does each step in the process add value?"

"You have to define value," he told the conferees. "For me, that is the end user — the fellow sitting in the cockpit, the fellow driving the tank, the fellow whose life is on the line. What do they think value is? If you get that wrong, it doesn't make any difference how efficient you are. You have the wrong item for the needed use. The fact that you made it efficiently is interesting, but not relevant."

He observed that a product, like a soft drink can only takes three hours to actually produce — but total elapsed product production time, from start to finish, takes 319 days.

His recommendations, entitled the "Lean Approach to Program Management," included: a strong program manager for the life of the program (said Womack, "How many of you are Acting?"); a co-located, dedicated team for the life of the program; target costing (versus bidding); value stream mapping to identify and remove waste; simultaneous development activities; continually falling concept-to-launch times for each new generation of programs; products targeted to niche needs; and short product lives.

Single Process Initiative (SPI) Panel

Air Force Maj. Gen. Timothy Malishenko, Commander, Defense Contract Management Command, served as moderator for the first conference panel: "The Single Process Initiative." Panel members included: Army Col. Stephen Kee, Project Manager, Apache Attack Helicopter Program; James Rebel, Assistant Program Executive Officer for Systems Engineering, PEO-Tactical Aircraft; David Franke, Deputy Program Director, F-16 System Program Office; Edward Will, Director, Contracts/Pricing for Acquisition Streamlining, McDonnell Aircraft and Missiles Systems, The Boeing Company; and Army Col. Edward Cerutti, Commander, DCMC Raytheon, Burlington, Mass.

According to Malishenko, SPI was established to affect legacy programs. "In the end, it's about industry coming to the table."

Kee spoke of the current corporate culture and how it pervades SPI proposals in several areas: manufacturing, business process, future business, risk reduction, and risk transfer.

Rebel spoke on lessons learned from SPI success stories, and Franke advocated

senior leadership involvement in SPI, as well as SPI training.

"This isn't about cost-savings," according to Will. "It's about changing the culture. One of the things we found out is that there aren't as many commercial specs that are direct substitutes for Mil-Specs and Standards as we initially thought going into this.

"I think one of the most dramatic things...is that in a very short time we have revolutionized how we handle quality in the military-industrial complex," Will continued. "We went from a Mil-Spec-based environment to an ISO-based environment in very short order. That permits us, as global companies, to compete."

Cerutti told the conferees to "Design anywhere, but build in Centers of Excellence."

Life Cycle Costs — Operations & Support Focus Panel

Army Maj. Gen. David Gust, PEO, Intelligence, Electronic Warfare, and Sensors moderated the second panel of Day 1, "Life Cycle Costs — Operations & Support Focus Panel." Panel members included: Army Maj. Gen. John Michitsch, PEO for Ground Combat Support Systems; Anthony LaPlaca, Director Logistics & Readiness Center, CECOM; Jerry L. McKamey, Strategic Systems Programs, U.S. Navy; and Army Col. Jeffrey Sorenson, Program Manager for Night Vision/Reconnaissance, Surveillance, and Target Acquisition.

Gust noted that support costs are increasing with older equipment. Two-thirds of costs are now in long-term, life-cycle support. Use of a common item over multiple platforms, according to Gust, cuts costs substantially.

Michitsch spoke of the payoff for increased training. "...On some of these complex systems now, we are spending an inordinate amount of money and time repairing things that don't need to be repaired, exchanging equipment that doesn't need to be exchanged, simply because the soldiers don't have the expertise." Using Field Service Representatives, largely to increase training for the Bradley, he stated, can create $1 million per month, per location, in demonstrated savings.

LaPlaca said that an approach consisting of a multi-disciplinary combination of power management solutions created effective cost savings. Improving power sources alone, gives only a small performance increase.

McKamey gave an example of an effective COTS strategy of changing the physical location of a type of workstation to enable use of COTS, rather than changing system requirements to withstand a harsher environment than the original location would have required.

Acting Assistant Secretary of the Army (Research, Development & Acquisition), Dr. Ken Oscar.

Sorenson presented video of a comparison of a first generation night vision system, and then showed a second generation view. The second generation image was much clearer. Since it was a digital system, a specific point of interest could be magnified.

The second generation view allowed sighting of not only the armored vehicle targeted, but individual crew members moving around it. Identifying/qualifying multiple vendors (including international sources) has driven the system's price down to a fraction of the original acquisition cost.

Town Hall Meeting

Donna Richbourg, Principal Deputy to the Deputy Under Secretary of Defense (Acquisition Reform), moderated a "Town Hall Meeting with New OSD Leadership" in the evening of Day 1, at the Fort Belvoir Officers Club. Panelists included the following key acquisition executives: Dr. Jacques Gansler, USD (A&T); Art Money, Senior Civilian Official for the Office of the Assistant Secretary of Defense (Command, Control, Communications & Intelligence); and Stan Soloway, Deputy Under Secretary of Defense (Acquisition Reform).

Dr. Gansler opened the Town Hall Meeting with a status report on the approval process for his staff positions, and noted that Stan Soloway, his new DUSD(AR), was confirmed earlier that day. He also discussed the growing recognition of the needed Revolution in Business Affairs and the strong link between C^3I and weapons systems. This led directly to the introduction of Art Money, former Air Force Service Acquisition Executive, who is now leading the C^3I organization. Money talked about his new responsibilities and the organization's goals and objectives. The floor was then opened for a lively hour-long Q&A session.

Section 912 Report

Ric Sylvester, Systems Acquisition, Office of the Deputy Under Secretary of Defense (Acquisition Reform), presented "Section 912 Report" to lead off the second day of the conference. Three issues discussed included: a workforce that is smaller and in fewer organizations; a workforce focused on managing supplies, not suppliers; and a workforce focused on Total Cost of Ownership (TOC).

Premium Service

Following Sylvester's presentation, William Gookin, Senior Transportation

Specialist, Defense Logistics Agency, spoke on "Premium Service." Premium Service Facility program objectives include: tailored storage, ordering, and delivery; Service-owned, mission critical items; fastest delivery (next flight out); delivery within 24 hours for CONUS/48 hours OCONUS; door-to-door service; and facility in operation, 24 hours per day – 365 days per year.

Industry-Government Partnership Panel

Navy Rear Adm. George P. "Pete" Nanos, Director, Strategic Systems Programs moderated the "Industry-Government Partnership Panel." Panel member, Air Force Col. Ben Overall, ICBM System Program Office (SPO), began the panel presentations with "ICBM Integration and Support."

Overall said that long-term support equals stable weapon system support. He recommended a 15-year contract, as well as incentives tied to weapon system operational performance. Affirming that improved efficiency equals cost savings, Overall also said that a streamlined SPO operation equals a reduced administrative burden.

Two other panel members – Sidney Hankerson, Jr., Principal Computer Scientist, Strategic Systems Department of the Naval Surface Warfare Center, Dahlgren Division; and Michael Eagan, Director of Development Programs for FBM Tactical Hardware, General Dynamics Defense Systems – made a joint presentation on the "TRIDENT Strategic Targeting System."

Hankerson explained COTS testing for the TRIDENT System in terms of a white box-black box approach. "In a black box approach...we really don't know what is inside the product. We only know it in terms of its interface and its behavior, based upon the load we put on the system."

A white box approach also accepts the source code, allowing complete insight into the vendor's program. White box allows the government team to remove all bugs from a vendor's product.

ASN(RD&A), John Douglass (right) stops by the Simulation Based Acquisition exhibit to get a first-hand look at the "virtual trainer." Pictured from left: Will Richards; Lee Copeland; Douglass.

USD(A&T), Dr. Jacques S. Gansler, visits the Defense Acquisition Deskbook Exhibit. Pictured from left: Kathy Hennes, ODUSD(AR); Gansler; Air Force Lt. Col. Dave London, Acquisition Deskbook Project Manager; Skip Hawthorne, Senior Program Analyst, ODUSD(AR).

The 1990s' version of a "break" in conference activities.

According to Eagan, COTS implementation and IPTs increase performance and mitigate obsolescence to reduce overall life cycle costs. The team's problem set included: identification of key differences in a COTS-based solution; review of existing processes; concepts and requirements definition, design and development, processing, deployment, and support; identification of required process changes; development and documentation of new process; and providing a mechanism for feedback.

The remaining panel members, Thomas Morton, Vice President and Chief Engineer, Lockheed Martin Missiles and Space; and Edward O'Connor, Jr., Executive Director, Spaceport Florida Authority, covered "From POLARIS to Lunar Prospector and Beyond."

Morton said that, following a failure, the company embarked on a rigorous testing program. They performed 30 tests in 30 days, and cut program delays ranging from nine months to a year, down to four months. According to Morton, the following habits of total partnership prevailed: integrity; open communications; trust (solutions not blame); Win-Win interactions; commitments (made and kept); no surprises; long-term view; continuity of experienced personnel; teamwork; unique strategic nuclear weapons system responsibility; learning from mistakes; and tailored processes.

O'Conner described the partnering relationships developed to sustain Launch Complex 46 for future developmental flight test requirements while providing a cost-effective, near-term commercial space launch capability. Without SpacePort Florida, NASA would have spent an additional $15 million to launch the Lunar Prospector.

Nanos summarized government-industry partnership lessons learned for forming a successful partnership, as follows:

- Top management
  - Up-front involvement and commitment
- Clear understanding
  - Needs and competencies of both parties
- Clear agreement
  - Mutual needs, risks, costs, benefits, and goals
- Trust and integrity
  - All levels must be suitably empowered
- Contractual terms
  - Guide, reward not punish
  - Ensure accountability

Principal Deputy (Acquisition & Management), Office of the Assistant Secretary of the Air Force (Acquisition), Darleen Druyun.

- Safeguards
  - Risk management
- Communication
  - Open, trusting
  - Problem solving, not blame
- Management involvement
  - Strong, continuous, top to bottom
- Trust and integrity

C4ISR Issues and Initiatives Panel

Dr. Margaret Myers, Director, C^{3}I Acquisition Oversight, moderated "C4ISR [Command, Control, Communications, and Computers Intelligence, Surveillance, and Reconnaissance] Issues and Initiatives Panel." Panel members included: Navy Rear Adm. John Gauss, Commander, Space and Naval Warfare Systems Command; Air Force Lt. Gen. Kenneth Minihan, Director of the National Security Agency/Central Security Service; John Osterholz, Deputy Director, C4ISR Integration Support Activity; and Ronald Mutzelburg, Deputy Director of Air Warfare, Office of Strategic and Tactical Systems, OUSD(A&T).

Dr. Margaret Myers began the Panel by saying that a C4ISR Support Plan was in DoD 5000.2 and has thus been required since 1996. This Panel will answer questions like: "What is C4ISR? Why should you care? How can you get C4ISR when you need it?" Myers also said that the Panel would talk about the good and the bad of C4ISR.

Mutzelburg said that he is a warfare, not a C4ISR person. He looks at C4ISR requirements from the weapons systems or shooter point of view. "Mutz" thus saw the need for increased weapons accuracy as not only a weapons problem, but also a sensor problem. This view resulted in a mapping project that will result in increased weapons delivery accuracy without changes to the weapons systems themselves.

Gauss began his talk with a discussion of C4ISR issues: interoperability, lease versus buy (color of money), budgetary stability, Y2K, and security.

He followed this discussion with a list of C4ISR challenges: standards versus standard products, speed to market, training, integrated versus interfaced systems, information services versus network services, best commercial processes versus Competition in Contracting Act (CICA), and market capture versus market share.

Minihan opened with the following statement: "...C4ISR is not the correct battlefield organizing mechanism paradigm because it is *output-oriented* rather than *outcome-oriented*. Information superiority says that you can measure the outcome, not just the output."

Osterholz said, "If you had absolute perfect knowledge of the damage that you

caused, or didn't cause, as a result of an attack, you have the potential for saving on the order of 40 percent of the sorties that would be expended in an attack if you had no battle damage assessment."

Acquisition Workforce Personnel Demonstration Project

The Day 2 luncheon speaker, Gregory Giddens, Program Manager, Acquisition Workforce Demonstration Project, Office of the Deputy Under Secretary of Defense (Acquisition Reform), presented the "Workforce Demo Project."

According to Giddens, the proposed revamp of the Human Resources Management System currently in place for the DoD Acquisition Workforce, would involve several major changes that will ultimately enhance the way employees are hired, managed, trained, and compensated. Major issues include: changing employee compensation from GS to broadbanding; simplified classification system; implementation of a Contribution-based Compensation and Appraisal System (CCAS); hiring procedures; modification of the Priority Placement Program for acquisition positions; critical skills training; workforce shaping; and sabbaticals for non-SES employees.

Said Giddens, "...There are some things in our proposals that, if we had a magic wand, we'd do differently. We tried to do as much as we could...to push the envelope so to speak. But we don't view this as the end of our efforts; we view this as the beginning of change.

"So I encourage you, as we go through the proposed changes here to look at this not as an end product for managing personnel and managing the workforce, but the beginning of change to a new process in a new environment.

"This [workforce demo] is not the easy way out. If you're in an organization and you want to manage people the easy way, don't do the demo. We did not set this up to establish it as the easy way out. We set it up to establish the best way we could devise to manage a workforce, be fair and equitable to the employees, and allow them to be rewarded for the contribution they're making as we draw down and expect them to do more."

Giddens went on to say that one driver of whether the workforce demo is fully implemented will be the unions. There will be some local unions that will not want to participate. "In those cases," said Giddens, "we can't implement at the local level without the local union group."

SAE Panel

Since Dr. Gansler is the Defense Acquisition Executive, he moderated the final panel of the conference — the "Service Acquisition Executives Panel."

Panel participants included: Assistant Secretary of the Navy (Research, Development, and Acquisition), John Douglass; Principal Deputy (Acquisition and Management), Office of the Assistant Secretary of the Air Force (Acquisition), Darleen Druyun; Assistant Secretary of the Army (Research, Development, and Acquisition), Dr. Ken Oscar; Acting Principal Deputy Under Secretary of Defense (Acquisition and Technology), Joseph Eash.

Douglass pointed out that new tools that project life-cycle costs for new ships, can help save money. For example, fuel costs are projected at $12 to $15 billion over a new ship's lifetime. $100 million spent on engines that are 25 percent more fuel efficient is a good trade-off. He also illustrated the instability of the workforce by citing a study published only a few years ago, signed by 22 of his senior staff — 12 are now gone, and five have moved.

Druyun said that the Workforce Demo Project is "extremely important." She said that 50 percent of employees at the Aeronautical Systems Center are eligible to retire in the next five years. "...I was very disappointed that the national unions, basically, are opposing the Workforce Demo Project...we have got to draw together and find a way to work out some agreements with the unions to get them on board," she said.

Oscar talked about the transition that these PEO/SYSCOM Conferences have made over the past three years. He stated that "...During the early conferences, the leadership talked to the PEOs and PMs about new initiatives. Now, the PEOs and PMs are talking to the leadership about what is working and what is not working. There have been many changes over just a short two or three years, and the people that have made it happen are here in this room."

Eash said that "...We as managers must provide the encouragement, incentives, and opportunities for our people to make the changes that they know need to be changed to make things better." He also commented that we must measure value at the warfighter level and nowhere else.

Conference Summation and Action Items

In closing the conference, Gansler told the conferees, "I think...the Acquisition Workforce is clearly No. 1 in the world." He attributes much of the progress in Acquisition Reform to the wide acceptance and implementation of IPTs. He also said that changes were getting harder to make. Trying to retain readiness, quality of life and force structure, and on top of that now doing the modernization (which has been put off — and we do not have the money to do it), creates a real challenge.

Dr. Gansler concluded with the following as the top-priority list of things that we must continue to address: training and education of the Acquisition Workforce (clearly at the top of the list); acquisition strategy to lower ownership costs; cycle-time reduction; lower-cost weapons; logistics re-engineering; information assurance; system of systems; and civil-military integration.

And finally, "We need to figure out how to get output metrics to measure our success over the next few years. We must know if we have reduced total ownership costs by 50 percent, if we have reduced cycle times by 50 percent, if we have met our CAIV [Cost As an Independent Variable] targets...."

The Eighth PEO/SYSCOM Commanders Conference is scheduled for October 20-21, 1998. Conference presentations are available on the DSAC Web Site at **http://www.acq.osd.mil/ dsac** on the Internet.

April 14-15, 1998

Conference Provides Forum for Large Diversity of Speakers, Issues, Points of View

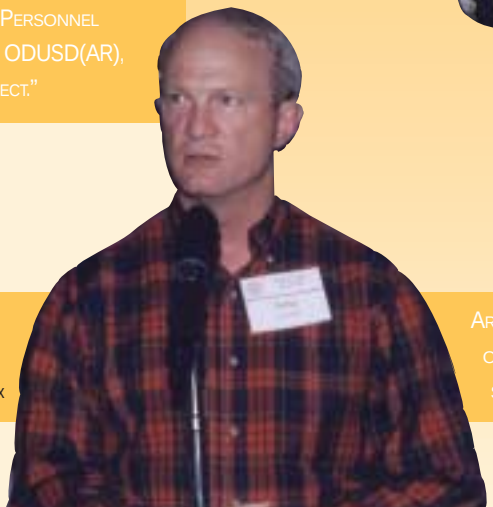
JOHN TAYLOR, MINISTER OF DEFENCE MATERIEL, BRITISH EMBASSY, "THE BRITISH SMART PROCUREMENT PROCESS."

AIR FORCE COL. BEN OVERALL, ICBM SPO, "ICBM INTEGRATION AND SUPPORT."

DONNA RICHBOURG, PRINCIPAL DEPUTY TO THE DUSD(AR), MODERATED THE "TOWN HALL MEETING WITH NEW OSD LEADERSHIP."

GREGORY GIDDENS, PROGRAM MANAGER, ACQUISITION WORKFORCE PERSONNEL DEMONSTRATION PROJECT, ODUSD(AR), "WORKFORCE DEMO PROJECT."

ARMY MAJ. GEN. JOHN MICHITSCH, PEO FOR GROUND COMBAT SUPPORT SYSTEMS, "LIFE CYCLE COSTS: OPERATIONS & SUPPORT" PANELIST.



ARMY MAJ. GEN. JOHN CALDWELL, DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT & ACQUISITION, HQ AMC, PARTICIPATES IN Q&A SESSION, SERVICE ACQUISITION EXECUTIVES PANEL.

Photos by Richard Mattox

LEANTHA SUMPTER, SENIOR ACQUISITION REFORM SPECIALIST, OUSD(AR), "FAR PART 15/PAST PERFORMANCE."

"PAGE" HOEPER, DUSD (INTERNATIONAL & COMMERCIAL PROGRAMS), "INTERNATIONAL COOPERATION."

DR. JAMES WOMACK, PRESIDENT, LEAN ENTERPRISE INSTITUTE, "LEAN THINKING FOR PROGRAM MANAGEMENT."

AIR FORCE MAJ. GEN. TIMOTHY MALISHENKO, COMMANDER, DCMC, "SINGLE PROCESS INITIATIVE" PANEL MODERATOR.

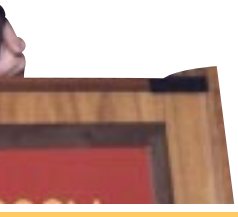
ROBERT HERTZFELD, ACTING ASSISTANT DUSD (DUAL USE & COMMERCIAL PROGRAMS), "COMMERCIAL OPERATIONS & SUPPORT SAVINGS INITIATIVE — COSSI." HERTZFELD IS DISPLAYING A BROCHURE HANDED OUT AT THE COSSI EXHIBIT.

LANCE DAVIS, DDR&E, "S&T TRANSITION."

WILLIAM GOOKIN, SENIOR TRANSPORTATION SPECIALIST, DLA, "PREMIUM SERVICE."

JERRY L. MCKAMEY, STRATEGIC SYSTEMS PROGRAMS, U.S. NAVY, "LIFE CYCLE COSTS: OPERATIONS & SUPPORT" PANELIST.

ARMY MAJ. GEN. DAVID GUST, PEO, INTELLIGENCE, ELECTRONIC WARFARE, AND SENSORS, "LIFE CYCLE COSTS: OPERATIONS & SUPPORT," FOCUS PANEL MODERATOR.



ARMY COL. STEPHEN KEE, PROJECT MANAGER, APACHE ATTACK HELICOPTER PROGRAM, "SINGLE PROCESS INITIATIVE" PANELIST.

JAMES REBEL, ASSISTANT PEO FOR SYSTEMS ENGINEERING, PEO-TACTICAL AIRCRAFT, "SINGLE PROCESS INITIATIVE" PANELIST.

DAVID FRANKE, DEPUTY PROGRAM DIRECTOR, F-16 SPO, "SINGLE PROCESS INITIATIVE" PANELIST.

EDWARD WILL, DIRECTOR, CONTRACTS/PRICING FOR ACQUISITION STREAMLINING, MCDONNELL AIRCRAFT AND MISSILES SYSTEMS, THE BOEING COMPANY, "SINGLE PROCESS INITIATIVE" PANELIST.

ANTHONY LAPLACA, DIRECTOR, LOGISTICS & READINESS CENTER, CECOM, "LIFE CYCLE COSTS: OPERATIONS & SUPPORT" PANELIST.

ARMY COL. JEFFREY SORENSON, PM FOR NIGHT VISION/ RECONNAISSANCE, SURVEILLANCE AND TARGET ACQUISITION, "LIFE CYCLE COSTS: OPERATIONS & SUPPORT" PANELIST.

AIR FORCE LT. GEN. KENNETH MINIHAN, DIRECTOR OF THE NATIONAL SECURITY AGENCY/CENTRAL SECURITY SERVICE, "C4ISR ISSUES AND INITIATIVES" PANELIST.

SIDNEY HANKERSON, JR., PRINCIPAL COMPUTER SCIENTIST, STRATEGIC SYSTEMS DEPARTMENT OF THE NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION, "TRIDENT STRATEGIC TARGETING SYSTEM."

RONALD MUTZELBURG, DEPUTY DIRECTOR OF AIR WARFARE, OFFICE OF STRATEGIC AND TACTICAL SYSTEMS, OUSD(A&T), "C4ISR ISSUES AND INITIATIVES" PANELIST.

JOHN OSTERHOLZ, DEPUTY DIRECTOR, C4ISR INTEGRATION SUPPORT ACTIVITY, "C4ISR ISSUES AND INITIATIVES" PANELIST.

NAVY REAR ADM. JOHN GAUSS, COMMANDER, SPACE AND NAVAL WARFARE SYSTEMS COMMAND, "C4ISR ISSUES AND INITIATIVES" PANELIST.

AIR FORCE BRIG. GEN. GARY SALISBURY, DEPUTY DIRECTOR FOR ENGINEERING & INTEROPERABILITY, DISA, "GLOBAL COMBAT SUPPORT SYSTEM – ACQUISITION PERSPECTIVE."

DR. MARGARET MYERS, DIRECTOR, C3I ACQUISITION OVERSIGHT, "C4ISR ISSUES AND INITIATIVES" PANEL MODERATOR.

MICHAEL EAGAN, DIRECTOR OF DEVELOPMENT PROGRAMS FOR FBM TACTICAL HARDWARE, GENERAL DYNAMICS DEFENSE SYSTEMS, "TRIDENT STRATEGIC TARGETING SYSTEM."

THOMAS MORTON, VICE PRESIDENT AND CHIEF ENGINEER, LOCKHEED MARTIN MISSILES AND SPACE, "FROM POLARIS TO LUNAR PROSPECTOR AND BEYOND."

EDWARD O'CONNOR, JR., EXECUTIVE DIRECTOR, SPACEPORT FLORIDA AUTHORITY, "FROM POLARIS TO LUNAR PROSPECTOR AND BEYOND."

RIC SYLVESTER, SYSTEMS ACQUISITION, ODUSD(AR), "SECTION 912 REPORT."

Acquisition Reform Satellite Broadcasts Save Time and Travel

The Challenge — Reaching Thousands of Acquisition Reformers in Real Time, with a Consistent Message

GREG CARUTH

From an interview with Kelley Berta and Betty Franklin. Satellite broadcasts are only part of the overall distance learning effort that the Defense Acquisition University (DAU) is using to reach the Acquisition Workforce with a consistent message about Acquisition Reform. But the bang for the buck is already obvious and exciting: Less travel, bigger audiences, and questions answered by subject matter experts in real time, make satellite broadcasts a dynamic and timely tool. And they fulfill one of the goals set by the Office of the Deputy Under Secretary of Defense for Acquisition Reform (ODUSD[AR]): to get the Acquisition Reform message to the Acquisition Workforce expediently, educating them on the latest legislation and changes in the acquisition process, and how it all impacts their jobs.

Caruth is the Director, Visual Arts and Press Department, Division of College Administration and Services, DSMC. Berta and Franklin are Program Analysts with the Acquisition Reform Communications Center, a Directorate of the Defense Acquisition University.

"Cost As an Independent Variable (CAIV)" Satellite Broadcast. From left: Herbert K. Fallin, ASA(RDA); Gene Porter, Center for Naval Analyses; Joseph Ferrara, Presidential Management Intern (Acquisition); Spiros Pallas, Principal Dep Dir Strategic & Tactical Systems, OUSD(A&T); Navy Rear Adm. Dan Bowler, Joint Staff. ▲

"Contract Pricing–Volume I" Satellite Broadcast. From left: Robin Baldwin, Army; LeRoy Haugh, AIA; David Steensma, DODIG; David Drabkin, ODUSD(AR); Carol Covey, DDP; Richard Wall, Ernst & Young; Bob DiMucci, DCAA. ▲

"Going Commercial" Satellite Broadcast. From left: Carol Hulgus, Rockwell; Air Force Brig. Gen. Frank J. Anderson; David Drabkin, ODUSD(AR); Nathan Tash, OFPP; LeAntha Sumpter, ODUSD(AR); Larry Trowel, GE. ▲

"Earned Value Management (EVM)" Satellite Broadcast. From left: Kevin Fahey, Army; Navy Capt. Dave Fitch, MIDS PM; Ric Sylvester, ODUSD(AR); Air Force Lt. Col. Frank Szalejko; Christopher J. Scolese, NASA. ▲

Photos by Richard Mattox

Who Runs the Show?

The ODUSD(AR) develops and coordinates the Satellite Broadcasts, with support from the Acquisition Reform Communications Center (ARCC), a Directorate of the DAU. Since June 1995, 19 broadcasts have aired, and three more are planned for May-June 1998.

How Did This Start?

Satellite broadcasting proved successful from the very early days of Acquisition Reform implementation, reaching audiences of 10 to 15 thousand people with each broadcast. It was a means of getting Acquisition Reform information to the workforce quickly and consistently.

The broadcasts are watched not only by DoD employees, but also by employees of the federal civilian agencies, industry, and academia; so everyone involved in the process of acquiring goods and services for the government has a clear and consistent understanding of the changes taking place.

Besides an estimated 15,000 viewers per broadcast, an average of 2500 videotapes per broadcast have been distributed as well.

Q&A – An Added Value to the Broadcasts

Beginning one hour prior to each broadcast, the studio opens up at least three phone lines, two of which are toll-free. Viewers have the opportunity to "sign in," identifying their organizations, viewing locations, and announcing how many people from their organization are watching the broadcast. This provides a snapshot of the audience.

These same phone lines (and at least two fax lines) are also available for viewers to call in or fax questions. Those callers who wish can ask their questions on the air, and a live panel of experts addresses those questions. If a caller chooses not to be on the air, the question is recorded by a staff backstage, and presented to the panel. Questions not answered during the live broadcast are referred to the Defense Acquisition Deskbook for further dissemination to subject matter experts (e.g., at the DAU consortium schools) for a response.

The workforce has shown great interest in the Q&A portion of the broadcasts because it enables them to call in with specific questions applicable to their daily operations, and receive answers directly from the experts.

▲ Official seals representing participating organizations. Clockwise: Department of Defense, National Aeronautics & Space Administration, Executive Office of the President of the United States, General Services Administration.

"Earned Value Management (EVM)" Satellite Broadcast. From left: Dave Muzio, OFPP; Jill Pettibone, DCMC; Ric Sylvester, ODUSD(AR); Robert Pattie, Boeing; Gregory L. Kee, PM, Reserve Component Automation System. ▲

"Performance Based Contracting" Satellite Broadcast. From left: Ken Sateriale, NASA; Harry "Sonny" Elmore, BDM, Intl.; Air Force Lt. Col. Hans Jerrell, SAF/AQCO; David Drabkin, ODUSD(AR); Linda Mesaros, OFPP; John Delane, DelJen, Inc.; Army Lt. Col. Chuck Vondra, ODUSD(AR). ▲

"Past Performance" Satellite Broadcast. From left: Haze Hanna, Troy Systems; Tom Colangelo, Army; LeAntha Sumpter, ODUSD(AR); Donna Richbourg, Principal Deputy to DUSD(Acquisition Reform); Stan Soloway, DUSD(AR); David Muzio, OFPP. ▲

"Oral Presentations" Satellite Broadcast. From left: Shelley Scott, Army; Ida Ustad, GSA; David Drabkin, ODUSD(AR); Robert Neal, Small & Disadvantaged Business Utilization; Mishawn Turner, Advanced Resource Technologies, Inc.; LeAntha Sumpter, ODUSD(AR). ▲

Participants and Panelists

The ODUSD(AR) chooses subject matter experts from the Services, civilian agencies, industry, and academia as participants and panelists. Each broadcast begins with a pre-recorded training scenario. It may be a group of contracting officers and their staffs walking through a particular type of contract, a lighthearted drama, or an interview with government employees who have actual experience with a new acquisition process or concept. After the prerecorded portion, they "go live" to the studio with the panel of experts. That's when the audience has an opportunity to participate.

David Drabkin, a former member of the ODUSD(AR) staff, hosted most of the 19 broadcasts. Other hosts include Ric Sylvester, ODUSD(AR), and Joe Ferrara, Congressional Affairs, OUSD(A&T). The director and producer for many of the broadcasts was Dr. Larry Lerer, former Advisor to the President of DAU. Pat Brooks, ODUSD(AR), coordinates the broadcasts. The panel of experts changes with each broadcast, depending on the subject matter.

Evaluation Forms

An evaluation form is mailed along with the broadcast announcement to the Acquisition Workforce. It's also posted on the ARCC Website. In addition to demographics, it asks questions typical of the following:

- How useful was this broadcast?
- Did it give you any new information?
- Will it help you do your job better?

This provides an idea of what the workforce needs, whether the target was met, and what might improve the next broadcast.

Future Broadcasts

The next broadcast, scheduled for May 27, will explain the Defense Acquisition Deskbook; on June 11, IT Contracting; and on June 25, Contract Pricing – Vol II. Plans are underway for more broadcasts in the fall of 1998, but topics and dates are yet to be determined.

Videotapes Are Available

Videotapes of each broadcast are available, free of charge, and serve as convenient refresher training and reference material. Currently, the ARCC has 10 different videotapes for distribution to the Acquisition Workforce. Videotapes are distributed until the information is either no longer complete and accurate, or is supplemented.

Copying Tapes

Viewers are encouraged to videotape the live broadcasts. The only restriction on videotaping the broadcasts is that they be taped in their entirety. Because professional actors are used, the Screen Actors Guild prohibits extracting portions of the scenarios for use in the development of other products. Videotapes can also be duplicated ad infinitum, as long as the user reproduces them in their entirety.

Advertising

The DAU Home Page on the World Wide Web (**http://www.acq.osd.mil/dau/arcc**) posts satellite coordinates for upcoming broadcasts, an outline of the material to be covered during each broadcast, and the evaluation sheet discussed earlier in this article. The ARCC also provides these materials to the Acquisition Workforce in hard copy through the U.S. Mail. Once the broadcast airs, other support materials are added to the website, e.g., an Information Guide or highlights of the material covered during the show.

If You Cannot Watch a Broadcast…

An audio line is available to you. This simply means dialing in to a toll-free number prior to the broadcast and listening rather than watching. Phone lines for this service are limited, so reservations must be made at least 48 hours prior to a broadcast by calling the ARCC at 1-888-747-ARCC.

Other Distance Learning Opportunities

The DAU and the ARCC have crossed the threshold of the distance learning arena and are well on the way to providing a new learning environment for the acquisition community. In addition to the satellite broadcasts and videotapes, the ARCC currently has two compact discs (CD) available. One addresses the Federal Acquisition Streamlining Act (FASA '94) and is designed for use in a group training environment. The second CD explains the Clinger-Cohen Act of 1996 and is formatted in self-paced training sessions, for individual desktop training.

The Acquisition Workforce also receives a comprehensive Teaming Package for Acquisition Reform Week activities, containing videotapes, CDs, seminars, and a simulation exercise. This Teaming Package supports the 40-hour continuing education requirement for Defense Acquisition Workforce members.

Further, the DAU and ARCC Websites provide several links to various acquisition and Acquisition Reform-related Uniform Resource Locators (URL), offering a wealth of information. In addition to an online Simplified Acquisition Procedures course, the DAU has three more courses in development for the World Wide Web.

It should be understood that, with the exception of the DAU online courses, these materials are designed to educate, not train. In other words, it is the goal of the ODUSD(AR) to inform the workforce of legislative and procedural changes affecting the way they do their jobs. This is not "how to" training, and does not substitute for Defense Acquisition Workforce Improvement Act certification courses. For more information on career fields, certification requirements, course descriptions and offerings, see the DAU Home Page at **http:// www.acq.osd.mil/dau.**

ARCC Broadcast Videotapes Currently Available

- Multiple Award Task and Delivery Orders
- FAR Part 15 Rewrite — Contracting by Negotiation
- Market Research
- Performance Based Contracting
- Cost As an Independent Variable (CAIV)
- Earned Value Management (EVM)
- Oral Presentations
- Going Commercial — FAR Part 12 Meets FAR Part 15
- Past Performance
- Contract Pricing — Vol I: What's the Right Price?

To find out more about these videotapes and how to place an order, visit the ARCC Home Page at http://www.acq.osd.mil/dau/arcc on the World Wide Web.

1998 AR Week III Teaming Package

Under Secretary of Defense (Acquisition & Technology, Dr. Jacques S. Gansler designated May 4-8, 1998, as AR Week III. This year's theme, "Leading and Embracing Change: Institutionalizing and Accelerating Acquisition Reform," was in keeping with former Under Secretary, Dr. Paul G. Kaminski's challenge to "keep up the momentum" of Acquisition Reform.

Months of behind-the-scenes work went into getting the 1998 Teaming Package ready for DoD's AR Week III. A team effort, the Package was a result of an AR Week III planning committee comprised of representatives from various DoD agencies and the military services. The committee began the planning process in early December 1997.

Use of the Teaming Package does not end with AR Week III. Dr. Gansler's memorandum, dated Feb. 25, 1998, announcing the observance of AR Week III, stated "Teams may use these materials to supplement or add focus to their own training programs during AR Week III and throughout the remainder of the year. This training package, together with our satellite broadcasts and other Service/agency-hosted training events, supports the Secretary's National Performance Review goal of providing 40 hours of continuing education and training to the acquisition-related workforce."

The Teaming Package includes a diverse selection of information on Acquisition Reform practices, processes, training, and initiatives, using a variety of multimedia:

CD-ROM

Eight Lecture/Seminar Sessions. These sessions cover various topics recommended by the committee and approved by the USD(A&T). Intended for use in a group/seminar setting, the sessions feature slide presentations with lecture notes, followed by a case study to reinforce the main teaching points of each lecture. Several topics are featured: Commercial Business Practices, Performance-Based Work Statements, Applying CAIV to a Commerciality Decision, Acquisition Strategies for Commercial Items, Open Systems Concepts and Application to DoD Weapon Systems, TDP Conversion for MTS, Performance-Based Spares Procurement, and Streamlining Logistics Requirements in Solicitations.

Group Problem-Solving Simulation. Related to total ownership cost, the group problem-solving exercise focuses on controlling total ownership cost for a simulated mission area. The Total Ownership Cost Simulation (TOC) guides multifunctional focus groups to apply trade-offs between performance, schedule, and risk to meet requirements using TOC as the controlling factor.

Defense Acquisition Reform Training Sessions (DARTS). Developed as self-paced training modules, the DARTS are a series of training sessions based on changes to the Federal Acquisition Regulation (FAR) and other initiatives resulting from the Clinger-Cohen Act. At the end of each session, a short quiz provides users an opportunity to test their understanding of the materials presented.

Topics included in DARTS are: Clinger-Cohen Act/FAR Change Overview, Streamlining FAR Part 15, Simplified Acquisition Procedures Initiatives, Commercial Items, Ethics, and Past Performance.

Videotapes

Also included in the Package are 12 videotape presentations, featuring edited versions of satellite broadcasts from the Office of the Under Secretary of Defense (Acquisition Reform).

Each tape summarizes a training program conducted via satellite broadcast. The scenario portion of the broadcast was extracted and a facilitator guide was developed to accompany the tapes. These tapes, along with the facilitator guide, can be used for short training sessions such as a brown bag lunch.

Two Additional CD-ROMs

Two additional CD-ROMs contained in the Package provide users 1) a self-paced, in-depth tutorial on the Open Systems approach; and 2) an automated desk aid for preparing performance specifications.

Open Systems. The Open Systems Joint Task Force provided the self-paced tutorial on the Open Systems approach, which provides the user a basic understanding of the concepts underlying an open systems approach. Examples of particular weapon systems programs are used to illustrate the application of open systems principles to achieve cost, schedule, and performance benefits by promoting multiple sources of supply and technology insertion over the life of a weapon system.

Performance Specifications. An automated desk aid for preparing performance specifications, the Performance Specifications CD-ROM contains three tools to aid in the development of performance-based specifications: Turbo SpecRight!, Turbo Streamliner, and the Market Research Training Module. "How to" sections include: developing new specifications, converting detailed specifications, market research, and development guidance.

To find out more about DoD's 1998 AR Week III Teaming Package, visit the AR Week III Home Page at http://www.acq.osd.mil/arweekiii on the World Wide Web.

To obtain a Teaming Package, send an E-mail to darcc@acq.osd.mil or fax your request to (703) 379-4319.

AR Week III Escalates Momentum of Acquisition Reform

"We Are Making Faster, Better, Cheaper Our Mantra"

COLLIE J. JOHNSON

Editor's Note: This issue of *Program Manager* focuses on OSD's observance of AR Week III. Look for coverage of military service and agency events – the principal focus of AR Week III activity – in a future issue. Meanwhile, tell us how your agency observed AR Week III; we're interested in hearing from you (**cjohnson@dsmc.dsm.mil**).

SECRETARY OF DEFENSE WILLIAM S. COHEN WAS THE KEYNOTE SPEAKER AT THE AR WEEK III KICKOFF CEREMONY ON MAY 4, IN THE PENTAGON COURTYARD. STANDING: COHEN. SEATED FROM LEFT: USD(A&T), DR. JACQUES S. GANSLER; ARMY CHIEF OF STAFF, GENERAL DENNIS J. REIMER; DUSD(AR), STAN SOLOWAY

The 1998 Acquisition Reform Week III Kickoff Ceremony held in the Pentagon Courtyard on May 4, followed by Office of the Secretary of Defense (OSD) Acquisition Reform Day activities, proved that DoD hasn't missed a beat in keeping up the momentum of the Acquisition Reform spirit and message.

A Week of Accelerating the Momentum

AR Week III was announced in a Feb. 25 memorandum from Under Secretary of Defense (Acquisition & Technology), Jacques S. Gansler to the entire Acquisition Workforce, designating May 4-8 as the Department of Defense AR Week III. Sometime during that week, on a day determined locally, each activity, from camp- and unit-level to major command- and OSD-level, ceased normal operations for one day to focus on Acquisition Reform initiatives.

The Deputy Under Secretary of Defense (Acquisition Reform), Stan Soloway and his staff, together with a DoD Planning Team, coordinated and managed the preparations, ranging from determining the approach and theme, sending out training packages to 5000 different locations, to orchestrating satellite broadcasts, exhibits, demonstrations, interactive chat sessions, and the May 4 Kickoff Ceremony.

All across the nation, commanders and managers set aside one day to emphasize teaming and the day-to-day application of Acquisition Reform initiatives in their own organizations. Activities included conferences, broadcasts, classes, team and group exercises, and discussions of lessons learned.

As in past years, this year's AR Week III provided an excellent forum for

Johnson is Managing Editor, Program Manager magazine, Visual Arts and Press Department, Division of College Administration and Services, DSMC. She is a 1996 recipient of Vice President Gore's "Heroes of Reinvention" Hammer Award.

acquisition and industry professionals at all levels to assess ongoing reform initiatives, exchange information regarding successes and failures, and learn new ways to implement and accelerate Acquisition Reform initiatives in their own programs.

The theme for AR Week III, "Leading and Embracing Change: Institutionalizing and Accelerating Acquisition Reform" was a fitting reminder that although DoD and industry have made tremendous inroads toward their mutual goal of reforming the DoD acquisition process, much remains to be done.

The Kickoff Ceremony

Secretary of Defense William S. Cohen, joined by Under Secretary of Defense (Acquisition & Technology), Jacques S. Gansler; U.S. Army Chief of Staff, General Dennis J. Reimer; and Deputy Under Secretary of Defense (Acquisition Reform), Stan Soloway, addressed an overflow crowd to not only report DoD-industry progress, but also to laud the efforts of the men and women — the DoD-industry "movers and shakers" — who are making Cohen's vision of a "Revolution in DoD's Business Affairs" a firm reality.

Secretary of Defense William S. Cohen

Admittedly "stunned" at the overflow crowd assembled in the Pentagon Courtyard, Cohen said that "Today, we can proudly proclaim that we're on the way to doing what many said could never be done — genuine reform of the Pentagon's acquisition system...Thanks to you we are in fact reinventing the way we buy things; we are making faster, better, cheaper our mantra; and thanks to you, more of our defense dollars are going to the product, and not to the process."

Cohen said that his role in Acquisition Reform actually started during his days as a U.S. Senator, where he helped draft and enact three laws that "scraped the rust and barnacles off the acquisition process, streamlining it, and making it perform better." It's extremely gratifying to bring that same level of commitment to reform, he told those assembled, to his current position as Secretary of Defense.

True Acquisition Reform, he asserted, is going to occur when everyone in the acquisition community is committed, understands the principles of Acquisition Reform, believes in them, and puts them into practice.

Said Cohen, "It was Tolstoy who reminded us that the issues of war and peace are often determined, not by leaders, but by everyday individuals. Every person is interconnected in this grand fabric of history. And so we're here today to celebrate the individual acts of accomplishment and daring that are taking our forces and this Department into the future."

Cohen stated that America stands at a true pivot point in history — a time of rapid change in politics and technology, and a time of great opportunity and great danger.

To allow our troops to succeed in this uncertain future, he believes that we have to build a force for the future. But he also knows that it's going to be impossible to build these forces without getting more out of our defense dollars; and it's going to be impossible to build them unless we have an acquisition system that can respond just as quickly and flexibly as our warfighters.

"That's why we are empowering you," he told those listening. "We want you to have the authority, the tools, the know how, and the incentives necessary to innovate and to resolve problems with a combination of *competence*, *creativity,* and *common sense*. If the conventional wisdom doesn't work, then it's no longer wisdom and it shouldn't be our convention."

Concluding his remarks to the Acquisition Workforce, Cohen placed particular emphasis on this one point: He and the rest of the Department leadership are going to fully support you, the Acquisition Workforce, when you try new approaches.

"Reforming this acquisition system of ours," he affirmed, "is not a risk-free enterprise. As you innovate and improve, there are going to be times when honest mistakes will be made. But when that happens, all of us in the DoD leadership are going to back you up 110 percent...and if we're successful in empowering you to fight these problems, then you're going to be successful in empowering our warfighters with combat superiority."

Packard Award Presentations

Following his remarks to the Acquisition Workforce, Cohen, joined by Under Secretary Gansler, awarded five teams the David Packard Excellence in Acquisition Award (see p. 114).

- Advanced Amphibious Assault Vehicle Program Team
- Army Purchase Card Program Team
- Integrated Program Management Initiative Joint Team
- New Attack Submarine Program Office
- U.S. Special Operations Command Naval Special Warfare Rigid Inflatable Boat Program Team

Speaking of the late David Packard, a former Deputy Secretary of Defense and founder-chairman of the Hewlett-Packard Company, Cohen repeated Packard's oft quoted credo: "Get the best people, stress the importance of teamwork, and then fire them up with a will to win."

Referring to the five award-winning teams, Cohen said, "Their will to win should light a fire in all of us."

Dr. Jacques S. Gansler

Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler, began his remarks by summarizing some of the critical issues the Acquisition Workforce must face during the next year:

- Expansion of our current and past efforts to revolutionize the way we do business, as we concentrate on further adapting commercial "best

Photos by Richard Mattox

practices" to defense needs (including in the cost accounting and auditing area).
- Restructuring of our support systems.
- Significant reduction of our infrastructure.
- Great Reduction in Cycle Times.
- Competitive sourcing of the vast majority of our support and infrastructure work.
- Civil/military industrial base integration.

To achieve success in this next round of reform, Gansler believes we must deal with government cost accounting and auditing requirements that industry sometimes finds overly burdensome — and which some of DoD's critics claim are antiquated and highly unreliable.

He also spoke of the need for a total re-engineering of the DoD logistics system. "We are living today with a 1950s' logistics model that is no longer affordable and which fails to provide acceptable performance. Advanced information systems and rapid transportation are keys to our success in this area."

On the topic of educating the workforce, Gansler stated that the Department will focus more attention on training and educating our Acquisition Workforce to meet the demands of our massive

"WE WANT YOU TO HAVE THE AUTHORITY, THE TOOLS, THE KNOW HOW, AND THE INCENTIVES NECESSARY TO INNOVATE AND TO RESOLVE PROBLEMS WITH A COMBINATION OF *COMPETENCE*, *CREATIVITY*, AND *COMMON SENSE*. IF THE CONVENTIONAL WISDOM DOESN'T WORK, THEN IT'S NO LONGER WISDOM AND IT SHOULDN'T BE OUR CONVENTION."

—SECRETARY OF DEFENSE WILLIAM S. COHEN

OSD ACTIVITIES

AR Week III
Panel/Speaker Topics
Pentagon Courtyard • May 4, 1998

- Paperless Acquisition Process
- F-117
- Dealing with a Restructured Defense Industry
- Civil Military Integration
- Credit Card Purchase Program
- Modernization Thru Spares
- Simulation Based Acquisition
- Commercial Operations & Support Savings Initiative
- Logistics Reform
- Total Cost of Ownership
- Joint Staff Initiatives
- Advanced Concept Technology Demonstrations
- New Rules in Procurement
- Price Based Contracting
- OSD Oversight: Implementation Tools
- Continuing Learning Requirements
- Open Systems in Acquisition Reform
- Joint Air-to-Surface Stand-Off Missile
- Advanced Medium Range Air-to-Air Missile
- Standard Procurement Sytem
- Acquisition Workforce Demonstration Project
- NPR Year 2000 Acquisition Goals — OSD Acquisition Reform
- Information Technology Management Reform Act
- Single Process Initiative
- Rigid Inflatable Boat Rapid Acquisition

"We are proud of you and appreciate all you have done to sustain the momentum of Acquisition Reform and for all your extra efforts. The nation's security over the coming years depends on you. I know we can count on your support."

—Dr. Jacques S. Gansler
Under Secretary of Defense
(Acquisition & Technology)

re-engineering effort. Said Gansler, "Unless we all know how best to do what we are doing and comprehend the benefits we derive by doing it better, Acquisition Reform will not succeed."

Expounding on a point Cohen made in his earlier remarks, Gansler told the Acquisition Workforce that as DoD accelerates the pace of reform, there will occasionally be mistakes. "As you can imagine, the largest acquisition organization in the world is going to make a few mistakes as we transform ourselves into world-class buyers. However, we must not let these set us back.

"The overall results being achieved – in cost, performance, and cycle time – from the acquisition reforms [implemented] to-date, clearly justify moving ahead aggressively. The benefits identified are already in the billions of dollars. We are well on the way to a successful 'Revolution In Business Affairs.'"

Gansler also directed his remarks to the defense industry represented at the ceremony. "To those of you who are here today representing our industrial partners, I want you to know that we will be looking to you to help us in this effort.

"As we move more and more aggressively toward dependence on competitive sourcing, we, as the nation's largest buyer, must expect the best prices and

EXHIBIT BOOTHS

OSD Activities – AR Week III
Pentagon Courtyard • May 4, 1998

- Alliant Techsystems
- Boeing
- Gore Tex
- Raytheon
- Lockheed Martin
- Defense Acquisition Deskbook
- Joint Group on Acquisition Pollution Prevention
- Navy Acquisition Reform
- NAVSEA Acquisition Reform Successes
- Modeling & Simulation – DMSO
- Simulation Based Acquisition – DTSE&E
- General Services Administration
- Air Force Acquisition Reform
- Evolved Expendable Launch Vehicle
- Joint Air–to–Surface Stand-Off Missile
- Joint Direct Attack Munition F-117
- Prime Vendor – DLA
- SOCOM Acquisition Reform Office
- Army Night Vision
- Army Acquisition Reform
- Army Acquisition Corps
- Army CECOM
- Open Systems Joint Task Force
- Global Automated Maintenance Environment
- Smith's Industries
- Naval Air Warfare Center
- Flight & Training Simulation
- Navy Office of Training Technology
- Defense Acquisition University
- Rockwell/Collins
- Advanced Amphibious Assault Vehicle
- Navy Safety & Survivability Reinvention Laboratory
- Electric Boat
- C4ISR
- Joint Base Station – SOCOM
- Rigid Inflatable Boat – SOCOM
- Logistics Reform Applications

Centuries ago in the ancient Roman empire, fishermen would cut a slice into one of their corks on their fishing nets and they would insert a coin into the cork before the nets were lowered into the water. The coin was meant to send a message to the Roman god of the sea, Neptune, that the fishermen were willing to pay the necessary price to invest their time, their strength, and their labor to reap the bounty of the sea.

Today we are here just to spend a few moments of our time sending a message. We want every person in the Department of Defense to know that we are willing to pay the necessary price, and invest our strength and labor in order that we may reap the benefits of Acquisition Reform. We want every person in the DoD to know that Acquisition Reform is critical to maintaining a strong defense in the 21st century.

—Secretary of Defense William S. Cohen

Acquisition Reform Week III Kickoff Ceremony May 4, 1998

AR Week III Live WebCast Scores Several "Hits"

Featuring a live "WebCast" of the AR Week III Kickoff Ceremony, as well as a series of interactive video chat sessions with senior leaders in the Defense acquisition community, the 1998 DoD AR Week III observance clearly showcased the information technology and multimedia now so inextricably linked to the success of DoD's Acquisition Reform efforts.

A readily accessible link to *ACQ*Web's Home Page on the Internet at **http://www.acq.osd.mil/arweekIII** ensured the widest possible dissemination of AR Week III information and materials. It also served as a point to retrieve video events highlighting important Acquisition Reform topics, as well as an electronic registration site for the chat sessions.

ACQUISITION REFORM
and the Battle of Little Big Horn

"I was at Gettysburg this weekend. I'd been on that hallowed ground many times, and every time I'm there, I learn something different. This weekend, I learned about Acquisition Reform.

To me, Acquisition Reform is about Springfield's and Henry's. If you stop and think about it, both sides — the Union and the Confederacy — were armed with a 58-caliber Springfield, muzzle-loaded rifle.

And the way you loaded that rifle was, you took some powder out of your pocket, bit off the paper, poured that [powder] in there, and then pumped down or pushed down a bullet on top of [the powder] — and then [you] fired it. Your maximum rate of fire at that point in time was about three rounds per minute.

Available to the force — both sides — was something called the Henry Rifle. It was a 44-caliber rifle, with a 15-minute round, so you can stop and think about the volume of fire that could have been unleashed if either force would have had the Henry Rifle as opposed to the Springfield.

But as Paul Harvey often says, 'There's another part of this story.' And the rest of the story is that after that war was over, and after Gettysburg was over, the United States Army faced the challenge of what to do.

What we did at that point in time was to modify the Springfield. We basically put another piece of mechanism on the rear part of the rifle, gave each soldier a knife, and 13 years later at the Battle of Little Big Horn [Custer's Last Stand], you found a lot of Springfield Rifles and a lot of knives, because they didn't work.

Now how does that relate to Acquisition Reform? In my mind, it has *a lot* to do with Acquisition Reform — it has *everything* to do with Acquisition Reform. Because what they were faced with at that point in time were limited resources. Do you modernize for the future, or do you continue to product-improve what you already have?

And while the pace of the operation has increased enormously, we still face the same challenges, and the challenges are still the same as Springfield's, Henry's, and Little Big Horn."

General Dennis J. Reimer
U.S. Army Chief of Staff
AR Week III Kickoff Ceremony
May 4, 1998

the best service from our private contractors. We also should expect your managers to work with our managers to help us get best value for our combat forces. Competition, market research, and price analysis are important tools at our disposal to ensure best value."

In closing, Gansler said that he had now been on-the-job as Under Secretary for about six months, and though that seemed like a very short time, it was adequate time for him to develop a deep appreciation for the dedication and hard work of the DoD Acquisition Workforce.

"I want to thank you personally for the support you have given me during these first few months. I know that this is a difficult – and challenging – period for all of you, as you put into place the new procedures and policies required to revolutionize the way the Department of Defense does its business.

"We are proud of you and appreciate all you have done to sustain the momentum of Acquisition Reform and for all your extra efforts. The nation's security over the coming years depends on you. I know we can count on your support."

"CHANGE IS NOTHING NEW FOR US [U.S. ARMY]. WE'VE BEEN CHANGING THROUGHOUT OUR 222-YEAR HISTORY. WHAT'S DIFFERENT IS THE MAGNITUDE AND THE PACE OF CHANGE THAT WE'RE EXPERIENCING IN THE LAST EIGHT YEARS. IT'S A TOUGH, TOUGH JOB, BUT WE HAD TO DO IT IN ORDER TO REMAIN RELEVANT AND TO ENSURE THAT OUR SOLDIERS, SAILORS, AIRMEN, AND MARINES REMAIN TRAINED AND READY."

—ARMY CHIEF OF STAFF, GENERAL DENNIS J. REIMER

Cohen, Gansler Present David Packard Excellence in Acquisition Awards

Five Teams Honored at AR Week III Kickoff Ceremony

On May 4, Secretary of Defense William S. Cohen, joined by Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler presented five 1998 David Packard Excellence in Acquisition Awards at a Pentagon ceremony that marked the official kickoff of Acquisition Reform Week III (AR Week III). The Packard Award was established to recognize DoD civilian or military organizations, groups, or teams who have made highly significant contributions that demonstrated exemplary innovation and best acquisition practices.

The award is named in honor of the late David Packard, founder and chairman of the Hewlett-Packard Company, former Deputy Secretary of Defense under President Nixon, and Chairman of a blue ribbon defense commission (the "Packard Commission") under President Reagan.

The 1998 award winners were competitively selected from nominations made by the military services and defense agencies. The principal nomination criterion was the demonstrated use of innovative team techniques, first advocated by Packard, to achieve excellence in defense acquisition.

Photos by Richard Mattox

Department of the Navy, New Attack Submarine Program Office. The New Attack Submarine Program Office is the first major program to implement the Integrated Product and Process Development method for complex warship system development and design.

Department of the Army Purchase Card Program Team. The Army Purchase Card Program Team is recognized for its dedicated efforts to re-engineer the acquisition process, providing tools for Army personnel to make purchases better, faster, and cheaper.

United States Marine Corps, Department of the Navy Advanced Amphibious Assault Vehicle Program. The Advanced Amphibious Assault Vehicle Team achieved significant reduction in Total Ownership Cost through implementation of Cost as an Independent Variable, Integrated Product and Process Development, and Virtual Prototyping.

The Integrated Program Management Initiative Joint Team. The Integrated Program Management Initiative Joint Team implemented a shift in Earned Value Management ownership and responsibility from government to industry, and has created a recognized international best practice.

United States Special Operations Command Naval Special Warfare Rigid Inflatable Boat Team. The United States Special Operations Command Naval Special Warfare Rigid Inflatable Boat Program Team has pioneered revolutionary test and Evaluation methods to fulfill Naval Special Warfare's urgent need for Combatant Craft Systems.

1998 AR Week III Exhibits, Presentations Draw Largest Crowd Ever

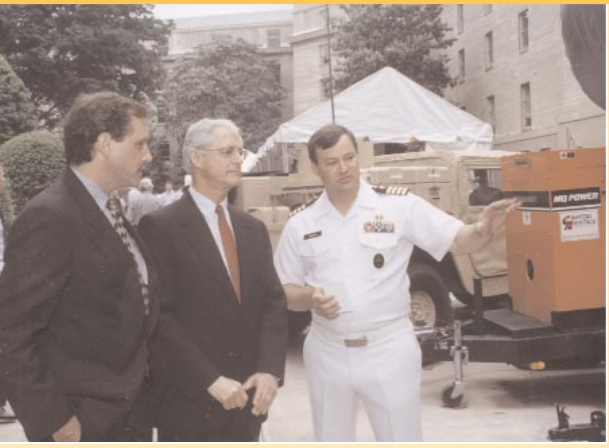
From left: DUSD(AR), Stan Soloway, USD(A&T), Dr. Jacques S. Gansler; Navy Capt. L.M. "Bud" Sawyer, PEO, Maritime and Rotary Wing, Acquisition & Logistics Center, U.S. Special Operations Command.

From left: Navy Rear Adm. "Lenn" Vincent, DSMC Commandant, Eleanor Spector, Director of Defense Procurement; Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler; Deputy Under Secretary of Defense (Acquisition Reform), Stan Soloway, Tom Crean, President, Defense Acquisition University. ▶

DAU's Acquisition Reform Communications Center (ARCC) prepared "Teaming Packages" of materials and educational tools to help commanders and managers at all levels plan and conduct AR Week III activities. Packages included case studies, videotaped presentations, and simulations highlighting implementation of AR initiatives. From left: USD(A&T), Dr. Jacques S. Gansler; Betty Franklin, ARCC; Kelley Berta, ARCC. ▶

From left: USD(A&T), Dr. Jacques S. Gansler; Skip Hawthorne, Senior Program Analyst, Office of the DUSD(AR). Hawthorne served as DoD's 1998 AR Week III Coordinator. ▲

From left: Army Lt. Gen. Henry Glisson, Commander, Defense Logistics Agency, Eleanor Spector, Director of Defense Procurement, USD(A&T), Dr. Jacques S. Gansler; Air Force Maj. Gen. Timothy Malishenko, Commander, Defense Contract Management Command. ▶



From left: Tom Crean, President, DAU; Assistant DUSD (Systems Acquisition), Donna Richbourg; DUSD(AR), Stan Soloway, Navy Rear Adm. "Lenn" Vincent, DSMC Commandant, former USD(A&T), Paul G. Kaminski; ASN(RD&A), ◀ John Douglass.

From left: Richard Caime, Lockheed Martin; Deputy Under Secretary of Defense (International and Commercial Programs), Paul J. Hoeper; ASN(RD&A), John ◀ Douglass.

From left: Former USD(A&T), Paul G. Kaminski; former PDUSD(A&T), R. Noel Longuemare; Acting ASA(RD&A), Dr. Ken Oscar; ASN(RD&A), John Douglass; Air Force Lt. Gen. George K. Muellner, Principal Deputy (Acquisition), ◀ SAF/AQ.

◀ From left: DUSD(AR), Stan Soloway, USD(A&T), Dr. Jacques S. Gansler; Army Maj (P) Fran Fierko, Assistant Product Manager, Second Generation Forward Looking Infrared (FLIR), Office of the Project Manager, Night Vision/Reconnaissance, Surveillance, and Target Acquisition. Fierko is holding a Thermal Weapon Sight (TWS).

Photos by Richard Mattox

Boats, Planes, Tanks, Submarines, Simulators, Virtual Trainers... and Much More!

After the May 4 AR Week III Kickoff Ceremony, Under Secretary of Defense (Acquisition & Technology), Dr. Jacques S. Gansler and Deputy Under Secretary of Defense (Acquisition Reform), Stan Soloway took a walking tour of the 40 exhibits on display in the Pentagon Courtyard. These photos attest that there was certainly plenty to see.

Electric Boat Corporation, a General Dynamics Company, exhibited a model of the NSN-22, the Navy's Next Generation New Attack Submarine. ▶

Developed by Boeing, the Joint Direct Attack Munition (JDAM) is an accurate, autonomous, adverse weather munition. The Defense Acquisition University and Boeing Learning Center are collaborating on a case study of JDAM. ▶

The Advanced Amphibious Assault Vehicle (AAAV) exhibit included representatives from the AAAV Technology Center and the prime contractor, General Dynamics, Land Systems. The AAAV is designed to enable Marines of the surface assault echelon to quickly and securely hit the beach and sustain momentum ashore. ▼

Alliant Techsystems exhibited the Outrider™ Tactical Unmanned Aerial Vehicle. When fielded by the U.S. military, the Outrider™ will provide tactical commanders real-time reconnaissance, surveillance, and target acquisition information without risking the lives of pilots or crew members. ▶

Raytheon's exhibit focused on the company's three core business segments: defense and commercial electronics; business aviation and special mission aircraft; and engineering and construction. ▶

The Joint Air-to-Surface Standoff Missile (JASSM), designed to destroy high-value, well-defended, fixed and relocatable targets, is being developed by Lockheed Martin for the U.S. Air Force and Navy.

An actual U.S. Special Operations Command Naval Special Warfare Rigid Inflatable Boat, dry-docked in the Pentagon Courtyard for the occasion, was a real crowd pleaser. The "RIB" prime contractor is United States Marine, Inc. (USMI).

Gore Tex, Inc., displayed a variety of military outerwear, footwear, gloves, headgear, and specialty items.

The Simulation Based Acquisition Exhibit, sponsored by the Office of the Director, Test, Systems Engineering and Evaluation, featured a hands-on demonstration of the "Virtual Trainer."

OASD PUBLIC AFFAIRS NEWS RELEASE

Secretary Cohen Appoints DARPA Director

Secretary of Defense William Cohen today announced the appointment of Fernando L. Fernandez as the Director of the Defense Advanced Research Projects Agency (DARPA). The agency is the principal organization within the Department of Defense for research, development and demonstration of concepts, devices, and systems that provide highly advanced military capabilities. As Director, Fernandez will manage the Agency's high-payoff, innovative research and development projects.

Fernandez comes to the Department from AETC Inc., a small, applied research organization he founded in 1994, where he served as President and Chairman of the Board of Directors. The company specializes in the use of advanced processing technologies to improve the detection, localization, and identification of hidden objects underwater and underground.

Prior to his involvement with AETC, Fernandez was President and Chairman of the Board of Directors of Areté Associates, a company he founded in 1976. From 1975 to 1976, he was a Vice President with Physical Dynamics Inc., and, prior to that, was a Program Manager with R&D Associates, where he directed the first ocean measurements that demonstrated radar detection of internal wave surface effects. From 1963 to 1972, Fernandez worked for the Aerospace Corp.

Fernandez is a member of the Chief of Naval Operations Executive Panel, is listed in *Who's Who* in Science, and is a member of the New York Academy of Sciences.

Editor's Note: This information is in the public domain at **http://www.defenselink.mil/news** on the World Wide Web.

OASD PUBLIC AFFAIRS NEWS RELEASE

Defense Threat Reduction Agency Director Selected

Deputy Secretary of Defense John J. Hamre announced today the selection of Dr. Jay C. Davis, a physicist, to head the effort to stand-up the proposed Defense Threat Reduction Agency (DTRA) on Oct. 1, 1998. At stand-up, Davis will assume the position of DTRA director.

A key element for the Secretary's Defense Reform Initiative (DRI) is to strengthen the Department's ability to deal with the proliferation of weapons of mass destruction (WMD). Countering WMD proliferation may represent the most important security challenge of the next decade. DTRA will be the Department's focal point for addressing this complex and comprehensive problem. The new agency is to be formed by consolidating the On-Site Inspection Agency, the Defense Special Weapons Agency, the Defense Technology Security Administration, and some program functions of the Assistant for the Secretary of Defense for Nuclear, Chemical and Biological Defense Programs. The Director, DTRA will report directly to the Under Secretary of Defense for Acquisition and Technology.

Davis is a nuclear physicist at Lawrence Livermore National Laboratory currently serving as the Associate Director for Earth and Environmental Sciences, integrating the Laboratory's efforts in environmental research, development, and demonstration. He has been a scientific advisor to the United Nations Secretariat, several U.S. agencies, and to scientific agencies of the governments of Australia and New Zealand. He participated in two U.N. inspections of Iraq as an expert on mass spectrometer and construction techniques.

Davis, who will assume his duties as head of the DTRA stand-up effort in June is a fellow of the American Physical Society. He received his bachelor's degree and master's degree in physics from the University of Texas and his doctorate in physics from the University of Wisconsin.

Editor's Note: This information is in the public domain at **http://www.defenselink.mil/news** on the World Wide Web.

Army Publishes FY99 Product Manager/Acquisition Command Selection Board Results

Congratulations to those individuals selected for Product Manager and Acquisition Command positions. For the first time, the selection board list includes representatives from all [Army] components (Active, Reserve and National Guard) and civilians!

Name	Grade	BR	FA	Name	Grade	BR	FA
Abercrombie, Henry E.	MAJ/P	AG	53	Harris, Earnest D.	MAJ/P	AD	53
Anderson, Ronald D.	LTC	USAR	97	Harvill, James T., Jr.	MAJ/P	AD	51
Batton, Kathleen M.	MAJ/P	QM	51	Holmes, Sharon L.	LTC	MI	53
Beery, Michael D.	MAJ/P	OD	51	Incorvati, Anthony R. II	MAJ/P	QM	97
Bonheim, Michael E.	LTC	OD	97	Jackson, Bonnie L.	LTC	IN	97
Boshears, Steven R.	LTC	QM	97	Jackson, Michele M.	LTC	AD	53
Browning, Kathleen F.	MAJ/P	FA	51	Jones, Kermit C.	MAJ/P	AD	97
Buck, Stephen D.	LTC	AR	53	Kendrick, Robert III	LTC	MP	97
Burnett, Donald J.	LTC	OD	51	Lambkin, Glen D., Jr.	MAJ/P	SC	51
Carson, Peggy R.	LTC	OD	97	Maddux, Jonothan A.	MAJ/P	SC	51
Colon, Angel L.	LTC	SC	51	Mahanna, Cory W.	MAJ/P	AV	51
Corlew, Robert L.	LTC	USAR	97	Montford, Leonard R., Jr.	LTC	SC	53
Dixon, Roland M.	LTC	SC	51	Morgida, Mark F.	LTC	FA	53
Donovan, Dennis P	LTC	ARNG	51	Moshier, Timothy F	MAJ/P	CM	51
Driessnack, Charles H.	MAJ/P	AD	51	Newton, Robert A. II	MAJ/P	AD	51
Ernst, Adolph H. III	LTC	IN	51	Nichols, Camille M.	MAJ/P	EN	51
Fierko, Francis X.	MAJ/P	AR	97	Sears, George A. II	MAJ/P	CM	97
Fountain, Harrison D.	LTC	IN	53	Szerszynski, Robert J.	GS-13	CIV	
Gavora, William M.	LTC	AV	51	Tidd, John P	LTC	IN	53
Gayles, Carlton E.	LTC	SC	53	Vaughn, John K.	MAJ/P	AD	51
Greene, Harold J.	LTC	EN	51	Welch, Billy H.	LTC	USAR	51
Hansen, Richard D., Jr.	MAJ/P	FA	51	Wolfe, Daniel G.	MAJ/P	AV	51

Editor's Note: *This information is in the public domain at* ***http://dacm.sarda.army.mil/news*** *on the Internet.*

ACQUISITION REFORM

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

DEPARTMENT OF DEFENSE

Under Secretary of Defense (Acquisition and Technology) (USD[A&T])
http://www.acq.osd.mil/HomePage.html
Index; library; Interacqt; answer center; and jump points.

Deputy Under Secretary of Defense (Acquisition Reform) (DUSD[AR])
http://www.acq.osd.mil/ar
Upcoming events; legislation; DUSD(AR) organizational breakout. "Ask A Professor" link allows users to ask questions and receive responses from subject matter experts within 10 business days.

Acquisition Systems Management (Defense Acquisition Board [DAB] Executive Secretary)
http://www.acq.osd.mil/api/asm/
Organization; mission; products; customers; Frequently Asked Questions (FAQ).

Director, Test, Systems Engineering & Evaluation (DTSE&E), USD(A&T)
http://www.acq.osd.mil/te/programs/se
Systems engineering mission; acquisition logistics; Defense Acquisition Workforce Improvement Act (DAWIA); Integrated Product and Process Development; manufacturing and production; modeling and simulation; quality; reliability and maintainability; risk management; systems; software; value engineering; publications; upcoming events.

DoD Acquisition Workforce Home Page
http://www.dtic.mil/acqed2/acqed.html
Current legislation; regulations; critical acquisition positions; FAQs.

Defense Acquisition Deskbook
http://www.deskbook.osd.mil
Automated acquisition reference tool covering mandatory and discretionary practices as well as procurement wisdom.

Defense Acquisition University (DAU) and Acquisition Reform Communications Center (ARCC)
http://www.acq.osd.mil/dau
DAU course and schedule information; consortium school links; acquisition documents and publications. ARCC provides Acquisition Reform training information, including satellite broadcast information!

Army Acquisition Corps (AAC)
http://www.dacm.sarda.army.mil
News; policy; publications; contacts; training opportunities.

Army Acquisition
http://www.acqnet.sarda.army.mil
Documents library; training and business opportunities; past performance; paperless contrating; labor rates.

Army Acquisition Reform
http://www.acqnet.sarda.army.mil/acqref/
Policy; guidance; newsletters; lessons learned; best practices; tools; metrics information.

Navy Acquisition Reform
http://www.acq-ref.navy.mil/
Policy and guidance; World-class Practices; Acquisition Center of Excellence; training opportunities.

Navy Acquisition, Research and Development Information Center
http://nardic.nrl.navy.mil
News; announcements; acronyms; information sources; technical reports; "How to Do Business with the Navy."

Naval Sea Systems Command
http://www.navsea.navy.mil/sea017/toc.htm
Total Ownership Cost (TOC); ASN(RD&A) Guidance on reducing TOC within the Navy; TOC Reduction Plan; Implementation Plan; Timeline; Process; TOC reporting templates.

Department of Navy Contractor Performance Assessment Reporting System (CPARS)
http://abm.rda.navy.mil/bpgpp.html
Guidance on Past Performance reporting; training modules; other tools.

Air Force (Acquisition)
http://www.safaq.hq.af.mil/
Policy and guidance; career development and training opportunities; initiatives; much more!

Air Force Materiel Command (AFMC) Contracting Laboratory's Federal Acquisition Regulation (FAR) Site
http://farsite.hill.af.mil/
FAR search tool; information on open FAR and Defense Federal Acquisition Regulation (DFAR) cases; *Federal Register*; *Commerce Business Daily* Announcements; Electronic Forms Library.

Headquarters, Air Combat Command (HQ ACC) — Contracting Division
http://www.acclog.af.mil/lgc/lgc.htm
Policy guidance and technical assistance in areas such as: performance measurement; operational contracting; International Merchant Purchase Authorization Card (IMPAC); commercial practices; outsourcing.

DoD Acquisition Workforce Personnel Demonstration Project
http://www.crfpst.wpafb.af.mil/
Federal Register and Waivers Package; documents and briefings; reference material; FAQs; links to related sites.

Defense Advanced Research Projects Agency (DARPA)
http://www.arpa.mil
News releases; current solicitations; "Doing Business with DARPA."

Defense Information Systems Agency (DISA)
http://www.disa.mil
Structure and mission of DISA; Defense Information System Network; Defense Message System; much more!

Defense Systems Management College (DSMC)
http://www.dsmc.dsm.mil
DSMC educational products and services.

National Imagery and Mapping Agency (NIMA) [Formerly Defense Mapping Agency (DMA)]
http://www.nima.mil
Geospatial and imagery information; publications; business opportunities.

Defense Modeling and Simulation Office (DMSO)
http://www.dmso.mil
DoD Modeling and Simulation Master Plan; services; resources; activities.

Defense Technical Information Center (DTIC)
http://www.dtic.mil/
Scientific and technical reports; products and services; registration with DTIC; special programs; much more!

Joint Electronic Commerce Program Office (JECPO)
http://www.acq.osd.mil/ec/
Policy; newsletters; Central Contractor Registration; Value Added Networks; assistance centers; online resources; EC training.

Open Systems Joint Task Force
http://www.acq.osd.mil/osjtf
Open Systems education and training opportunities; studies and assessments; reference library; projects; initiatives and plans.

ACQUISITION REFORM

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

Government Education and Training Network (GETN) (For Department of Defense Only)
http://www.afit.af.mil/Schools/DL/schedule.htm
Schedule of distance learning opportunities.

Government-Industry Data Exchange Program (GIDEP)
http://www.gidep.corona.navy.mil
Non-conforming products; diminishing manufacturing sources; engineering; metrology; reliability-maintainability for better readiness and reduced costs.

FEDERAL CIVILIAN AGENCIES

ARNET (Joint Effort of the National Performance Review and Office of Federal Procurement Policy)
http://www.arnet.gov/
Virtual library; procurement resources; best practices; business opportunities.

Federal Acquisition Institute (FAI)
http://www.gsa.gov/staff/v/training.htm
One-stop acquisition training shop; Federal Acquisition Streamlining Act resource materials; FAR; Federal Acquisition Reform Act.

Federal Acquisition Jump Station
http://procure.msfc.nasa.gov/fedproc/home.html
Procurement and acquisition servers by contracting activity; CBDNet; Reference Library.

General Accounting Office (GAO)
http://www.gao.gov
Investigative arm of Congress; examines matters relating to the receipt and disbursement of public funds. Allows users access to GAO reports, FAQs.

General Services Administration (GSA)
http://www.gsa.gov
Online shopping for commercial items to support government interests.

Library of Congress
http://www.loc.gov
Public laws; legislation; vetoed bills; Congressional Internet services.

National Performance Review (NPR)
http://www.npr.gov/
Government cost-savings advice; "how to" tools; customer service; accomplishments and awards.

National Technical Information Service (NTIS)
http://www.fedworld.gov/preview/preview.html
Online ordering and FAQs.

Small Business Administration (SBA)
http://www.SBAonline.SBA.gov
Communications network for small businesses.

U.S. Coast Guard
http://www.dot.gov/dotinfo/uscg/welcome.html
News and current events; services; points of contact.

INDUSTRY AND PROFESSIONAL ORGANIZATIONS

Aerospace Industries Association
http://www.access.digex.net
Critical issues facing today's U.S. aerospace industry; access to related Internet sites.

Commerce Business Daily
http://www.govcon.com/
Access to current and back issues with search capabilities; business opportunities; interactive yellow pages.

Electronic Industries Association (EIA)
http://www.eia.org
Government Relations Department includes links to issue councils.

National Contract Management Association (NCMA)
http://www.ncmahq.org
"What's New in Contracting?"; educational products catalog.

National Defense Industrial Association (NDIA)
http://www.ndia.org
Events; government policy; virtual conference center.

Society of Logistics Engineers (SOLE)
http://www.sole.org/
Online desk references that link to advice in solving logistics problems.

Computer Assisted Technology Transfer (CATT) Program
http://catt.bus.okstate.edu
Collaborative effort between government, industry and academia. Learn about CATT and how to participate.

TOPICAL LISTINGS

*ACQ*WEB Index of Offices by Title
http://www.acq.osd.mil/acqweb/topindex.html
Great launch pad to acquisition-specific sites and topics.

DoD Specifications and Standards Home Page
http://www.acq.osd.mil/es/std/stdhome.html
Military standards and specifications reform; FAQs; key POCs; standardization library (newsletters, policy memos, and other documents); training, seminars, and conferences; commercial and nondevelopmental item programs.

Earned Value Management
http://www.acq.osd.mil/pm
Implementation of Earned Value Management; latest policy changes; standards; international developments; active noteboard.

Fedworld Information
http://www.fedworld.gov
Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

GSA Advantage
http://www.fss.gsa.gov
Assistance in using the government-wide International Merchant Purchase Authorization Card (IMPAC).

If you have questions about the above sources, or would like to add your Website to this list, please call the Acquisition Reform Communications Center (ARCC) at 1-888-747-ARCC. DAU encourages the reciprocal linking of its Home Page to other interested agencies. Contact the DAU Webmaster at: dau_webmaster@acq.osd.mil

STAN Z. SOLOWAY

Deputy Under Secretary of Defense (Acquisition Reform), Office of the Under Secretary of Defense (Acquisition and Technology)

Stan Soloway joined the Office of the Under Secretary of Defense for Acquisition and Technology in March 1998 and was formally appointed as the Deputy Under Secretary of Defense for Acquisition Reform on April 13, 1998. Prior to joining the Department of Defense, he was a public affairs and public policy consultant for 20 years. During that time he provided policy and political guidance to a wide range of companies and associations.

Soloway's particular expertise includes government contracting, acquisition policies, and outsourcing/privatization issues. He has worked extensively with the Office of Management and Budget, Office of Federal Procurement Policy, and a number of federal agencies, including the Department of Defense and the General Services Administration. In addition, he has worked with a broad cross-section of the Congress, including the committees of jurisdiction for defense, procurement, and related issues.

In recent years, Soloway has been active in major acquisition reform initiatives, including the Federal Acquisition Streamlining Act, the Clinger-Cohen Act, the rewrite of FAR Part 15, contract bundling, the Service Contract Act, OMB Circular A-76, and the full range of issues related to outsourcing and privatization.

For the seven years prior to joining the Department of Defense, Soloway assisted the Contract Services Association of America in overseeing the association's public affairs and public policy activities. In that capacity, he worked closely with the association's Legislative, Procurement, and Political Action Committees on a broad array of issues of concern to the CSA membership. He also represented CSA on key coalitions and initiatives focused on acquisition reform and general procurement issues (as a founding member of the Acquisition Reform Working Group [ARWG] and a member of the Operating Committee of COD-SIA – Council of Defense and Space Industry Associations); privatization and outsourcing (as a founder of the Government Competition Coalition, and as Chairman of the Industry Depot Coalition); and more. He also worked closely with the CSA President and the CSA Executive Committee on long-range strategic planning matters.

In addition to his work with CSA, Soloway assisted various individual companies on policy matters, market, and contract issues. He has also been a frequent speaker on outsourcing and procurement issues at several major conferences/symposia: the 1997 DoD Procurement Conference; the 1997 Federal Bar Association Western Briefing Conference; various *Defense Week* conferences; the U.S. Air Force Academy Conference on the Future of DoD and the Defense Industrial Base (1997); the Bureau of National Affairs/George Washington University Annual Procurement Policy Conference; the Irish Trade Board conference on "Doing Business With the U.S. Government" (Dublin, 1995); and numerous industry events.

Soloway is also an experienced film and television producer and has developed and produced programming for local, national, and international television, including the PBS series "Great Confrontations at the Oxford Union," and the syndicated special "After the Handshake: The Israel/PLO Accords," a townhall meeting hosted by Marvin Kalb.

Soloway graduated from Denison University in 1975 with a B.A. in Political Science, where he was elected to the National Men's Leadership, National Journalism, and National Political Science honoraries. He lives in Washington with his wife Kathy, a clinical social worker, and their three daughters: Mollie, Anna, and Sonya.

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